MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION, MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATION KYRGYZ REPUBLIC

Interstate Higher Education Organization Kyrgyz-Russian Slavic University named after the first President of the Russian Federation B.N. Yeltsin

«ENDORSED»
Abilova S.S.
04.11 2026

Hygiene
Course Outline (Module)

Assigned to — **Hygiene Department**

Academic Curriculum — 560001_26ILDi.pli.xml
560001KR General medicine (foreign student)

Qualification — specialist
Mode of study — Intramural
Total credit value — 4 credit points
Course hours — 120
including:
in-class learning - 64
individual work- 26
exams -29.5

Distribution of hours for the discipline by semesters

Course hours scheduling (per semester)				
Semester	5		Total	
Weeks	18			
Type of class	AC	CO	AC	CO
Lectures	16	16	16	16
Practical classes	48	48	48	48
Contact work during the theoretical training	0.5	0.5	0.5	0.5
Total classroom	64	64	64	64
Contact work	64.5	64.5	64.5	64.5
Independent study	26	26	26	26
Time to control	29.5	29.5	29.5	29.5
Total	120	120	120	120

The Course outline developed by: Dr. med. sci., professor Kasymova R.O.,
Head of the Department _*Dr. med. sci., professor Kasymova R.O.,*

Reviewers:

Head of the Department of epidemiology *Dr. med. sci., professor Orozobecova B. T.* cand. med. sci., docent, *Shahmatova A.K.*

Head of the educational program
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The Course Outline **HYGIENE**

Is developed in accordance with the State Educational Standard of the Higher Professional Education of the Kyrgyz Republic in the specialty 560001: General Medicine (Order No. 1357/1 of the Ministry of Education and Science of the Kyrgyz Republic dated July 30, 2021).
in accordance with Academic Curriculum:
Specialty: 560001-KP "General Medicine" (for foreign students)
confirmed by KRSU Board of Academics in 29.10.2024 (protocol № 4)

The Course Outline endorsed at the staff meeting of hygiene department
Protocol by 28/08 2026y. № 1
Valid for: 2026-2031 academic year
The head of department Dr. med. sci., professor Kasymova R.O

1. COURSE OuTLINE OBJECTIVES	
1.1	Professional training of specialists from different medical specialties (hygienists, epidemiologists, infectious diseases, phthisiologists, surgeons, obstetricians, gynecologists, pediatricians, dermatologists, neuropathologists, etc.) can not be qualitative and effective without profound study of preventive disciplines - hygiene, ecology and epidemiology. Knowledge of hygiene for doctors of preventive and medical profiles is necessary during professional activity: 1. Analysis of the health status of the population or its individual contingents in connection with anthropogenic and social conditions of life and work. 2. Diagnosis of diseases associated with the state of the environment and the environment. 3. Primary, secondary and tertiary prevention of diseases, organization, conduct and control of preventive measures. 4. Participation in the work of medical social-expert commissions of medical-labor expertise, drug control commissions, commissions of medical-labor expertise, and other medical commissions, whose task is to study and assess the health status. 5. Assessment of the conditions of stay in organized groups (children's, educational). 6. Analysis of the severity and intensity of labor and professional activities in order to determine the need for the transfer of workers with certain violations of their health for easier work, the appointment of medical and preventive nutrition, dispensary care, spa treatment, rehabilitation. 7. Ability to recommend methods and means of the regime of the day, training, work, personal hygiene, diet, the use of natural factors and a set of methods and means of tempering the body. 8. Provision of medical recommendations and instructions on the use of methods and means of prevention of intra-hospital infections, infections and invasions among the population at its service in the clinic, at home, in organized groups. 9. Carrying out sanitary-educational work among patients, in organized groups (children, educational, labor) and among the population as a whole and others. These are the main, but not all, activities of a physician who need knowledge of hygiene . In connection with the above-mentioned medical education should help to form a young specialist notonly clinical, primarily preventive, that is hygienic thinking, understanding of the role of factors of the environment and social conditions of life in the occurrence of violations of health and diseases, justification of preventive measures. Medical care of the population causes the urgent need for profound knowledge of hygiene, primary, secondary and tertiary disease prevention and hygienic research skills.

2. PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM	
Educational Program Units:**:**	
2.1	**Students' preliminary Training Requirements:**
2.1.1	Humanitarian, social and economic cycle (history of medicine), the natural science cycle, clinical disciplines.
2.1.2	Normal physiology
2.1.3	Biochemistry
2.1.4	Biology
2.1.5	Physics
2.1.6	Chemistry
2.2	**Disciplines and practices for which the development of this discipline (module) is necessary as a previous one:**
2.2.1	Occupational diseases
2.2.2	Infectious diseases
2.2.3	Oncology, radiation therapy
2.2.4	Hospital surgery
2.2.5	Hospital therapy

STUDENT COMPETENCES FORMED AS A RESULT OF MASTERING THE DISCIPLINE (MODULE)	
PK-11 able and ready to conduct sanitary-educational healthy nutrition among the population; to eliminate modified risk factors for the development of diseases, to give recommendations.	
Knowledge:	
Level 1	The role and tasks of nutrition in strengthening and maintaining health in modern conditions.
Level 2	Recommended values of physiological norms for food consumption
Level 3	Recommendations for the correction of nutrition, taking in to account physiological norms
Skills:	
Level 1	Use reference materials and tables when calculating the caloric content of waste rations
Level 2	Conduct a hygienic assessment of the diets and nutritional quality of various population groups
Level 3	Investigate food poisoning in order to organize preventive measures
Expertise:	
Level 1	Methods for correcting the qualitative and quantitative composition of the diet, taking into account the individual needs of the body
Level 2	The methodology for compiling the menu - layout and its hygienic assessment

Level 3	Methods for the prevention of hypovitaminosis conditions, mineral deficiencies
PK-24 - able and ready to train middle and junior medical personnel in the rules of the sanitary and hygienic regime, ethical and deontological principles;	
Knowledge:	
Level 1	the role and importance of individual environmental factors in the emergence and spread of infectious and non-infectious diseases;
Level 2	sources and ways of entry into the human body of contaminants of various nature that have an adverse effect on health;
Level 3	principles of organization and content of preventive measures to prevent or reduce the degree of adverse effects on humans of harmful factors and environmental conditions
Skills:	
Level 1	comply with moral and legal standards in professional activities.
Level 2	express professional information in the process of intercultural interaction, observing the principles of ethics and deontology
Level 3	use educational and methodological materials and documents in the field of sanitary protection of the environment;
Expertise:	
Level 1	the skill of working with educational and methodological materials and documents in the field of sanitary protection of the external environment;
Level 2	the basic principles of ethics and deontology;
Level 3	basics of hygienic safety analysis; experience with search engines, databases, etc.. (computer skills PK); communication skills
PK -25 - able and ready to train the population in basic hygiene measures and educational activities to form healthy lifestyle skills;	
Knowledge:	
Level 1	Features of the influence of abiotic environment factors on human health (solar radiation, temperature, humidity, air velocity, atmospheric gas composition, natural and artificial lighting)
Level 2	Fundamentals of hygiene measures aimed at improving the health of the population
Level 3	Fundamentals of rational nutrition, organization of the regime of work and rest, prevention of fatigue and overwork. personal and public hygiene requirements

Skills:	
Level 1	Establish cause-and-effect relationships of changes in health status from the impact of environmental factors
Level 2	Use hygiene measures to improve public health
Level 3	Conduct training for patients and relatives on the basic hygiene measures of a health-improving nature (accounting for daily energy consumption, drawing up a diet, work and rest, the effect of weather on health. hardening).
Expertise:	
Level 1	Theoretical knowledge in all areas of hygiene
Level 2	Practical skills in the primary prevention of occupational diseases and poisoning, industrial injuries
Level 3	Rules for the prevention of cardiovascular diseases, cancer, GID, meteorological diseases, preventive measures to increase the body's resistance.
PK-33 - able and ready to introduce new methods and techniques aimed at protecting public health.	
Knowledge:	
Level 1	Fundamentals of the legislation of the Kyrgyz Republic on the protection of public health
Level 2	The main regulatory and technical documents for environmental protection (hygiene of air, water, soil, etc.)
Level 3	Indicators of public health, factors that shape human health (professional and climatic, endemic, social
Skills:	
Level 1	Rationing and forecasting the impact of environmental factors on the human body Organize measures to prevent the adverse effects of environmental factors on the human body
Level 2	Conduct a hygienic assessment of the conditions of stay of patients in medical institutions. evaluate the working conditions of workers at industrial enterprises, the working conditions of medical workers, the features of the process and conditions of education of children and adolescent
Level 3	Conduct an assessment of the state of health at the individual and population levels using evidence-based medicine techniques, develop evidence-based treatment and preventive measures.
Expertise:	
Level 1	Modern methods of assessing the state of public health by the method of social and hygienic monitoring.
Level 2	Methods of sanitary-educational work among the population on primary prevention of diseases. Interpretation of the results of laboratory and instrumental studies of the external environment.
Level 3	Own an algorithm for identifying priority problems and developing a project for comprehensive medical and preventive measures
OK-l - able and ready to analyze socially significant problems and processes, use the methods of natural sciences, mathematics and the humanities in various types of professional and social activities;	
Knowledge:	
Level 1	the phenomena of modern life take into account the genetic characteristics and historical fate of these phenomena, the ability to conduct a discussion and intercultural dialogue on the basis of tolerance, in the field of the social sphere; skills of conscious and responsible participation in the formation and development of civil society
Level 2	basic provisions and methods of social, humanitarian and economic sciences in solving social and professional problems
Level 3	be aware of the social significance of their future profession, have high motivation to perform professional activities
Skills:	
Level 1	work with information in global computer networks;
Level 2	present research results in the form of reports, abstracts, publications and public discussions
Level 3	be able to make practical recommendations on the use of research results
Expertise:	

Level 1	own the basic methods, methods and means of obtaining, storing, processing information, have the skills to work with a computer as a means of information management computer networking and communication skills. Global network Internet.
Level 2	demand and analyze social data. Perform statistical data analysis
Level 3	offers an analysis of specific socio-cultural spaces,

Education results

3.1	**Knowledge:**
3.1.1	the basics of the legislation of the Kyrgyz Republic, the main normative documents on environmental protection, occupational hygiene, hospital hygiene, hygiene of children and adolescents, military hygiene, nutrition hygiene, prevention of hospital infection
3.1.2	principles of organizing environmentally related disease prevention measures, morbidity prediction by environmental the relationship between an increase in population morbidity and harmful environmental conditions, occupational hazards, noncompliance with personal and public hygiene rules, dietary deficiency.
3.2	**Skills:**
3.2.1	to conduct hygienically oriented measures to reduce morbidity, to keep up good health, work ability and longevity. To promote and instill self-control skills in the main physiological parameters related to hygienic non-compliance. To conduct socio-hygienic monitoring and medico-statistical analysis of morbidity, longevity in communities
3.3	**Expertise:**
3.3.1	defining adverse environmental factors including climate and weather which contribute to seasonal rise in morbidity. Rationale nutrition for prevention of obesity herosclerosis, caries, etc. Analysis and correction of individual nutrition, creation comfortable conditions for medical personnel and patients staying in a hospital with due account for temperature, humidity, microbial contamination of the atmospheric environment in hospital wards, offices, main and auxiliary rooms, prevention of hospital infection.

4. COURSE (MODULE) STRUCTURE AND CONTENT							
Class code	**Subject Name /Type of Class/**	**Semester / Academic Year**	**Hours**	**Competencies**	**Literature**	**Interactive**	**Notes**
	UNIT 1. Hygiene of atmospheric air, water, soil						
1.1	Introduction. Hygiene of the environment Solar radiation, health effects /Lec/	5	2	PK-11 PK-24 PK-25 PK-33		0	Lecture notes
1.2	Methods of hygienic assessment of natural and artificial lighting of residential buildings and hospital facilities /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2.	0	Methodical guide, equipment
1.3	Recommended levels of natural and artificial lighting norms /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2.	0	Creating a presentation using MS PowerPoint
1.4	Hygienic assessment of indoor air temperature, humidity /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2	0	Methodical guide, equipment
1.5	Insolation regimes /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2	0	Normative documents
1.6	Weather, climate and microclimate, acclimatization processes /Lec/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2		Lecture notes
1.7	Hygienic assessment of air movement velocity and atmospheric air pressure levels. Methods for assessing air microbial //contamination /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2.	0	Normative documents (WHO) Methodical guide, equipment
1.8	Hygienic assessment of the direction of troop movement, wind rose /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2.	0	Normative documents (WHO) Methodical guide, equipment
1.9	Hygienic requirements to drinking water quality of a centralized and decentralized system /Lec/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2 L2.2	0	Lecture notes
1.10	Methods of ameliorating drinking water quality /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2 L2.2	0	Creating a presentation using MS PowerPoint
1.12	Special methods of water treatment /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2 L2.2	0	Methodical guide
1.11	Hygiene of soil. Removal of solid and liquid waste in communities /Lec/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2 L2.2 L3.4	0	Lecture notes
1.13	Sewerage systems, sewage disposal fields and burying fields. Classification of soil by degree of contamination /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L2.3 L2.4 L3.2	0	Methodical guide (WHO)
1.14	Solid waste utilization /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L2.3 L3.2 L3.4	0	Creating a presentation using MS PowerPoint
1.15	Sources of environmental pollution. Impact on human health /Lec/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.4 L3.4	0	Lecture notes

1.16	Global issues of water area pollution and water hunger /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2 L.2.3 L2.4	0	Creating a presentation using MS PowerPoint
	Unit 2. Nutritional hygiene						
2.1	Nutritional hygiene, physiologic norms and dietary status of different population groups /Lec/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.	0	Lecture notes
2.2	Hygienic control of nutrition adequacy and quality. Role of the main nutrients /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.		Methodical guide (WHO) Methodical guide of the department
2.3	Prevention of hypovitaminoses and microelementoses /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.	0	Creating a presentation using MS PowerPoint
2.4	Nutritional, biologic, energy value and chemical composition of the main foods. Food contamination by xenobiotics. Genetically modified foods, human health //Lec/	6	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.	0	Lecture notes
2.5	Hygienic assessment of an individual student's daily diet. Drawing up a protocol and dietary correction (interactive work) /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.	0	Methodical guide of the department
2.6	Food poisonings and their prevention /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.	0	Creating a presentation using MS PowerPoint
2.7	Prevention of diseases through nutrition /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L2.5 L3.5.	0	Instructions, requirements, SanRules&Norms
2.18	Medical nutrition /SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L2.1 L2.5 L3.5.	0	Instructions, requirements, SanRules&Norms
	Unit 3 Hospital hygiene. Occupational hygiene and physiology.						
3.1	Hygienic requirements to the design of layout, planning and equipment of hospital facilities /Lec/			PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3		Lecture notes
3.2	Sanitary-hygienic requirements to the site, water-supply, sewage system of hospitals /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Methodical guide, normative documents
3.3	Hygienic assessment of conditions of the hospital stay of patients/SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Creating a presentation using MS PowerPoint
3.4	Hygienic requirements to the somatic (therapeutic), surgical, children's maternity department /Lec/	5	5	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Lecture notes
3.5	Hygienic requirements to the territory, microclimate, natural and artificial lighting, ventilation, interior decor in hospital departments. Examination of hospital departments and making up a protocol on its results: an exercise in Bishkek city hospitals. Interactive sesion /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Methodical guide of the department

3.6	Hygienic requirements to water supply and a sewage system, utilization of medical waste/SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Instructions, requirements, SanRules&Norms
3.7	Hygienic requirements to specialized medical facilities /Lec/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Lecture notes
3.8	Hygienic control of quality, planning, equipment and the sanitary-hygienic regime of the food bloc /Pr/	5	3	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Methodical guide of the department
3.9	Organization of personal hygiene and health control of the staff of the food unit/SIW/	5	2	PK-11 PK-24 PK-25 PK-33	L1.1 L1.2. L1.3	0	Methodical guide of the department
3.10	Fundamentals of occupational hygiene and physiology /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2.	0	Lecture notes
3.11	Methods of hygienic assessment of dangerous and hazardous occupational factors /Pr/	2	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Methodical guide. visual aids
3.12	Physiologic responses in the body of workers under the work process /SIW/	5	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Research papers of the department
3.13	The main occupational hazards, occupational safety of workers in different industries /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Creating a presentation using MS PowerPoint
3.14	Occupational hygiene and occupational diseases related to the impact of dust, vibration, noise and laser radiation /Pr/	5	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Methodical guide of the department
3.15	Occupational selection in enterprises with harmful labour conditions /SIW/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Creating a presentation using MS PowerPoint
3.16	Prevention of occupational diseases, poisonings and occupational injuries /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Creating a presentation using MS PowerPoint
3.17	Labor protection of workers with harmful working conditions (legislative and social aspects) /SIW/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Methodical guide of the department
3.18	Industrial poisons, health effects of lead and mercury exposure on workers/Pr/	5	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2. L.1.4 L3.1 L3.2	0	Methodical guide of the department
UNIT 4.	**Hygiene of children and adolescents**						
4.1	Methods for assessing health condition, and physical development parameters of children and adolescents /Pr/	5	3		L1.1 L1.2 L.3.1 L 3.3		Methodical guide of the department
4.2	Methods for standardization of physical development of children and adolescents /SIW/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Creating a presentation using MS PowerPoint
4.3	The problems of adaptation of children and adolescents to environmental impact. Pediatric population health /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Lecture notes
4.4	Hygienic assessment of children's learning readiness at school, school maturity and occupational guidance. Hygienic assessment of the learning process of the organization of class schedules /Pr/	5	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3		Methodical guide of the department

4.5	Hygienic assessment of nutrition, physical training of children and adolescents Hygienic requirements to learning environment, prevention of fatigue and over fatigue of school-children /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3		Lecture notes
4.6	Hygienic assessment of the learning process of the organization of class schedules Hygienic requirements to children's preschool facilities. Organizing daily regimen Organization of nutrition for children and adolescents and physical training classes in preschool educational establishments and schools /Pr/	5	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Methodical guide of the department
4.7	Hygienic requirements to school furniture and equipment/SIW/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Creating a presentation using MS PowerPoint
4.8	Hygienic assessment of nutrition, physical training of children and adolescents /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Methodical guide of the department
4.9	Personal hygiene of children and adolescents/SIW/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Instruments
4.10	Hygienic requirements to drinking water quality of a centralized and decentralized system Hygiene of labor education, learning and vocational training of school-children /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Methodical guide of the department
4.11	Healthy lifestyle and personal hygiene. Psychohygiene. Physical culture and bases of temperin /Lec/	5	2	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 L.3.1 L 3.3	0	Lecture notes
4.12	Healthy lifestyle and personal hygiene/Pr/	5	3	PK-11 PK-24 PK-25 PK-3	L1.1 L1.2 .	0	Methodical guide of the department

5.1. Advancement Questions and Assignments

Examination questions
To check students' competence
Knowledge:
1. Hygiene as a subject, its goals, tasks and methods
2. The history and the key stages of hygiene, its founders
3. Environmental factors and their effect on the population health
4. Solar radiation, types of radiation, impact on population health
5. Light climate, biologic effect of solar radiation on the human body
6. UV radiation, its types and health effects
7. Infrared radiation, its type and health effects
8. Visible rays, their types and impact on human health
9. The structure of atmosphere. Physical properties of the air (humidity, velocity, temperature)
10. Decreased and increased atmospheric pressure depending on the terrain elevation and air temperature
11. Notion of microclimate, its types, effect of discomfort microclimate on human health
12. Weather, medical classification of weather types, meteotropic diseases
13. Definitions of climate, climate-forming factors
14. Meteotropic diseases, their types and prevention
15. Problems of human adaptation and acclimatization to different climatic conditions
16. Anthropogenic and technological pollution of atmospheric air of residential areas
17. Methods of purification of atmospheric emissions
18. The main ecological problems related to atmospheric air pollution.
19. Types of water-bodies and water-sources, water-supply systems
20. Surface waters and their hygienic assessment
21. Ground waters, their hygienic characteristics and potential for drinking water uses
22. Underground water-sources, hygienic assessment
23. Natural physico-chemical composition of water
24. Hygienic role and significance of water, water consumption norms with sewerage system availability and without it
25. Physiologic significance of water
26. Epidemiologic significance of water

27. Coagulation of water
28. Special methods for improvement of drinking water quality
29. Impact of hard water on human health
30. Global problems related to water –supply to the population
31. Types, composition and properties of soil, its hygienic significance, self-purification processes
32. Sources of anthropogenic pollution of soil
33. Significance of soil in the spread of infectious diseases
34. The role and tasks of nutrition in health promotion and preservation in modern conditions
35. Nutrition as an environmental factor, effect on population health
36. Rational health definition
37. Physiologic nutritional norms for different occupational groups of population
38. Significance and norms of animal protein consumption in a daily diet
39. Essential amino-acids, their physiologic significance
40. Significance and norms of carbohydrate consumption in a daily diet, their energy value
41. Simple and complex carbohydrates, their sources and composition
42. Animal and plant fats, their energetic and biological value
43. Vitamins, their classification, sources and causes of hypo- and hyper-vitaminoses
44. Water-soluble vitamins, consumption norms and significance in human vital activity
45. Fat-soluble vitamins, consumption norms and significance in human vital activity
46. Vitamin-like substances, their physiologic significance
47. Types and significance of microelements in human nutrition, microelementoses, their causes and prevention
48. Nutrition deficiency related diseases (cachexia, kwashiorkor and alimentary marasmus)
49. Alimentary dystrophy, its causes and prevention
50. Diseases of hypernutrition and signs (of obesity, atherosclerosis, diabetes mellitus, cholelithiasis and nephrolithiasis)
51. Vegetables and fruits, their role and significance in human nutrition
52. Food quality and safety (contamination with pesticides, antibiotics, etc.)
53. Gene engineered foods (GMO) and effects of their consumption
54. Morphological and functional specific features of children's development at different age periods
55. Physical development as health criteria, methods of assessment of physical development parameters of children and adolescents
56. The main indices of physical development of children and adolescents
57. Acceleration, modern notions of its causes
58. Hygienic requirements to the design of hospital facilities
59. Hygienic requirements to the interior planning, equipment and outfitting of the main and auxiliary premises of health care facilities
60. Hygienic requirements to water-supply, sewerage system, heating system of health care facilities
61. Hygienic requirements to lighting, ventilation, microclimate of the main and auxiliary areas of health care facilities
62. Hygienic measures to prevent fatigue and over-fatigue (overstrain)
63. The subject and goals of occupational hygiene and physiology
64. Basics of occupational physiology. Changes taking place in human physiology during work activity
65. Hygienic assessment of work intensity, tension and energy expenditures
66. Hygienic assessment of workers' labor in different climatic conditions
67. Hazardous and harmful physical, chemical, biological, psycho-physiologic occupational factors
68. Notion of occupational hazards, occupational diseases, occupational poisonings and occupational injuries
69. Types of dust, its classification, physicochemical properties and composition
70. Hazardous and harmful physical, chemical, biological, psycho-physiologic occupational factors
71. Notion of occupational hazards, occupational diseases, occupational poisonings and occupational injuries
72 Types of dust, its classification, physicochemical properties and composition
73. Specific and nonspecific diseases related to dust exposure, their consequences and prevention
74. Occupational noise, noise disease and its prevention
75. Occupational vibration, effect on health and its prevention
76. Intoxication with lead, preventive measures
77. Intoxication with mercury, preventive measures
78. Occupational hygiene in the hot shops and at work-sites of heat-power facilities
79. General features of the effect of industrial chemicals on the human body
81. Occupational hygiene in the open air, prevention of work-related trauma and pustule diseases of the skin
82. Occupational hygiene in ore and coal-mining industry
83. Occupational hygiene of laser facilities
84. Occupational hygiene in agriculture (arable farming, crop farming, livestock-breeding). Occupational hygiene and safe use of chemical pesticides and mineral fertilizers

Questions to check students' competence:

Skills

1.Determine microclimate, its types, effect of thermal discomfort on human health
2.Definition and medical classification of weather types, impact on human health
3.Determine climatic features and climatic regions on the territory of Kyrgyzstan and Russia
4.Determine the impact of hot weather on human health, measures to prevent body overheating
5.Determine the impact of cold climate on human health, prevention of overcooling and related diseases
6.Determine the impact of high altitude on human health, measures to prevent negative consequences
7.Sources of atmospheric air pollution, health effects, morbidity prevention
8.The main ecological problems related to atmospheric air pollution
9.Determine the possibility of using drinking water by organoleptic parameters of drinking water quality
10.Determine the possibility of using water for water supply of the population by chemical parameters of drinking water quality
11.Determine the possibility of using water for drinking water supply by microbiological parameters of drinking water quality
12.Determine the consequences of non-observance of sanitary protection zones for water sources (a possibility of intentional chemical, microbial contamination)
13.Determine physical and chemical methods of purification and decontamination of drinking water
14.Determine types of water hardness and methods to remove it.
15.Determine diseases related to deficiency of microelements in drinking water
16.Determine diseases related to consumption of poor quality water
17.To assess rural community purification systems and implement educational program for the population on purification, disposal of solid and liquid waste.
18.Assess systems for sanitary cleaning of cities, collection, removal, utilization and treatment of solid waste.
19.Assess the significance of the local and general sewerage system, its arrangement/construction and methods of sewage treatment
20.Educate patients on hygienic principles of healthy life-style.
21.Determine consequences of socially bad habits and their impact on the health of the population, conduct prevention activities among the population.
22.Use basic mental hygiene knowledge to keep you, patients and people near you healthy.
23.Conduct hypodynamia prevention activities and use hygienic methods to fight its consequences
24.Organize a daily regime based on the importance of physical exercise for keeping good health, active and passive rest/recreation and sleep in order to strengthen hygienic skills of the population
25.Redesign your daily routine for an optimal work-life balance a basis for healthy lifestyle and disease prevention.
26.Determine food poisonings of microbial etiology, their types and symptoms
27.Determine non-microbial food poisonings, their types and symptoms
28.Determine poisonous mushrooms and consequences of their consumption
29.Determine poisonings caused by toxins of microscopic fungi (fusariosis, mycotoxicosis, alimentary toxic aleukia)
30.Provide medical aid to victims and participate in the investigation and prevention of food poisonings
31.Determine criteria for diving children and adolescents into health groups
32.Use basics of hygienic education pre-school aged children in your activity in order to teach in the younger generation personal and public hygiene skills.
33.Use basic elements of the daily hygienic regime, for the prevention of fatigue of schoolchildren, educate parents and keep up and strengthen health of children and adolescents.
34.Conduct hygienic assessment of the learning activities at school
35.Determine school maturity and to conduct vocational guidance of adolescents
36.Use basic hygienic elements for physical education and in your educational activities.
37.Assess requirements to the sitting and design of preschool and school establishments from the hygienic point of view.
38.Assess air and temperature conditions, insolation, illumination in children’s preschool establishments, their conformance to hygienic requirements
39.Determine preventive and current sanitary control of the sitting and exploitation of hospitals
40. Organize and main hygienic and infection control regime in polyclinics and non-specialized hospitals (departments, wards, etc.)

41.Use hygienic assessment of work capacity and adaptation to professional activity
42.Use hygienic requirements regarding mental and physical labor in order to prevent overstraining and fatigue
43.Use the main principles of conducting health-improvement measures at work place
44.Perform the control regarding the use of individual and collective protection equipment in order to prevent occupational diseases of workers of industrial enterprises
45.Organize balanced nutrition of industrial workers (5 diets)
46.Assess the main diseases of military personnel staying in open and closed fortification structures, their prevention

Questions to check students' competence

Expertise

1.Primary prevention of diseases
2.Secondary prevention of diseases
3.Tertiary prevention of diseases
4.The main ecological issues related to atmospheric air pollution
5.Methods of prevention of respiratory diseases system related to atmospheric air pollution
6.Types and methods of drinking water chlorination
7.The use of mineral waters, their effect on human health
8.Methods of prevention of endemic diseases in geochemical provinces (iodine deficiency, iron deficiency, fluorine deficiency, etc)
9.Hygienic requirements to the design/planning of settlements, the significance of city-forming factors and the structure of a modern city
10.Hygienic assessment of noise, electromagnetic radiation, their impact on the health of residents of large cities, measures to prevent negative effects
11.Hygienic assessment of building and finishing material
12.Assesment of a system of sanitary cleaning of cities, collection, disposal, utilization and decontamination of solid waste, sorting of solid waste
13.Assessment, analysis, statistical processing of health indices of the population of modern cities
14.The main sources of urban atmospheric air pollution, impact on health, preventive measures
15.Collection, decontamination and utilization of wastewater/sewage and solid domestic waste by different methods
16.Hygiene of rural dwellings, liquid and solid waste disposal
17.Soil protection measures
18.Dental and oral hygiene skills
19.Rules of personal and public hygiene
20.Hygienic requirements to clothes and shoes
21.Techniques of hardening by air, water and sun.
22.Prevention of ultraviolet deficiency
23.Hygienic assessment of synthetic detergents and household chemicals, prevention of their harmful effects
24.Individual assessment of rational nutrition, calculation of daily energy expenditure
25.Methods for the assessment of adequate nutrition
26.Hygienic basic elements of balanced nutrition
27.Determination/definition of /adequate nutrition, method of assessment
28.Organizing rational nutritional regime/a rational diet, managing percent distribution of caloric value in a daily diet
29.Determination nutrition of status and its types
30.Hygienic assessment of bread products
31.Hygienic assessment of meat and meat products, their role and significance in human nutrition
32.Hygienic assessment of milk and milk products, their role and significance in human nutrition
33.Hygienic assessment of vegetables and fruits, their role and significance in human nutrition
34.Assessment of food quality and safety (contamination with pesticides, antibiotics, etc.)
35.Hygienic assessment of equipment and outfitting of pre-school institutions and schools
36.Prevention of musculoskeletal dysfunction, postural disorders and vision disorders children and adolescents
37.Hygienic requirements to rational nutrition of children and adolescents
38.Hygienic control of nutrition provided to patients in hospitals
39.Hygienic control of quality of medical service for patients in polyclinics and in-patient departments
40.Hygienic control of provision of sanitary conditions and conveniences to patients and auxiliary personnel in polyclinics and in-patient departments
41.Organization of hygienic and infection-control regimes in infectious diseases, radiology, surgery departments, maternity homes and other specialized hospitals
42.Organization of hygiene regime of work hours, rest breaks for meal periods and auxiliary personnel in hospitals
43.Work safety of persons working in contact with dangerous and hazardous physical, chemical, biological agents in hospitals.
44.Hygienic control of personal hygiene of medical and service personnel in hospitals

45.Organizing and conducting of prophylactic and periodic medical examinations of medical and auxiliary personnel in hospitals
46.Prevention of hospital infection
47.System of collection, removal, neutralization, decontamination of waste in hospitals
48.Organization of preliminary (when applying for a job) prophylactic periodic medical examinations of persons working in industrial and agricultural sectors
49.The main methods to detect, treat and rehabilitate patients with occupational diseases and poisonings

5.2. Course Paper Themes

The course paper is not required by the curriculum

5.3. Assessment Fund

TEST. See the list of test questions in ANNEX №4

SITUATIONAL PROBLEM
The place where 4 managers work, is located in the basement area of an office building. They work an 8hours daily , of which 80% is taken by work on personal computers (their room is equipped with 4 tables with computers on them). The workplace area is 18 square meters. There is no natural lighting in the workplace of the managers, artificial light sources are luminescent lamps, the illuminance of managers' tables in the location area of working documents is 250 lk. The noise level in the room is 65 dBA.
Assess working conditions of the managers.

Answer to the situational problem.
Managers work in conditions not meeting the relevant hygienic norms, because:
1. The workplace is located in a basement of an office building and has no natural lighting, which is impermissible for work involving the use of computers.
2. The workplace with an area of 18 square meters contains 4 tables with computers, therefore, the area per one person work-space is 4.5 square meters. The duration of managers' work involving computers is 80% (6.5 hours) of total working hours, it means an individual work-space should be 6 square meters.
3. The type of lighting fixture to provide artificial illumination in a work place of the managers (luminescent lamps) conforms to hygienic regulations, however, the illumination of the desk surface in the location area of working documents is considerably below the conforming level (300-500 lk).

The list of assignments in APPLICATION № 5

PAPER WITH PRESENTATION / SHORT ESSAY. Topics:
1. Anthropogenic atmosphere pollution and its impact on population health
2. Climate and health
3. Environmental and hygienic problems of modern cities
4. Health promotion as prevention of meteotropic reactions
5. Water as a factor in the spread of communicable and non-communicable diseases
6. Environmental problems related to the global pollution of water-sources
7. Environmentally related diseases and their prevention
8. Environmental and hygienic significance of soil

9. Modern problems of the hygiene of children and adolescents
10. Acceleration processes and their effect on the physical and mental development of children and adolesscents
11. Occupational hygiene of medical workers
12. Hygienic requirements to the sitting and equipment of general health care facilities and specialized hospitals
13. Prevention of fatigue and over fatigue in industrial enterprise workers
14. Labor condition of agricultural workers
15. The basics of physiology, work intensity
16. Topical problems of nutrition hygiene
17. Food products made from GMOs and consequences of their use

SETTING QUESTIONS TO THE WHOLE CLASS. The list of questions in section 5.1 (to knowledge)

DRAWING UP A SANITARY EXAMINATION CHART

5.4. List of Assessment Tools

Test ANNEX 4.
Situational problem ANNEX 5.
Drawing up a sanitary examination chart ANNEX 6.
Evaluation of individual nutrition ANNEX 7.
Paper with presentation / Essay ANNEX 8.
Lists of scales of assessment ANNEX 3.

6. COURSE (MODULE) METHODOLOGICAL AND INFORMATIONAL SUPPORT

6.1. Recommended Reading

6.1.1. Required Reading List

	Authors, Compliers	Title	Book publisher, Year
L1.1	Mahajan & Gupta.-Ussama Maqbool-	Textbook of Preventive & Social Medicine	4th Edition
L1.2	Park K.et al ; Park's	Textbook of preventive and social medicine	23rd Edition
L1.3	R.O. Kasymova, M.R Azhimatova, M.J.Kudayarova, I.A. Abdigulova;	Health care organization: An educational-methodical manual / Kyrgyz-Russian Slavic University Medical Faculty	Bishkek, 2021. – 103 p.
L1.4	Spellman, Frank R.	Industrial hygiene simplified : a guide to anticipation, recognition, evaluation, and control of workplace hazards	2006.-370 p.

6.1.2. Advanced Reading

	Authors, Compliers	Title	Book publisher, Year
L2.1	WHO/CDS/CSR/EPH/	Prevention of hospital-acquired infections.	A practical guide 2nd edition. /WHO/CDS/CSR/EPH/2002.12
L2.2	World Health Organization	Guidelines for Drinking-water Quality (4th Edition,	WHO.-2011
L2.3	World Health Organization	Protecting surface water for health. Identifying, assessing and managing drinking-water quality risks in surface-water catchments.	WHO.-2016
L2.4	World Health Organization	Compendium of WHO and other UN guidance on health and environment Chapter 4. Solid waste	2021 (WHO/HEP/ECH/EHD/21.02)
L2.5	World Health Organization	Hygiene end sanitation hand book	WHO.-2018

6.1.3. Guidance Papers			
	Authors, Compliers	Title	Book publisher, Year
L3.1	A.H. Suryakantha	Textbook of Community Medicine with Recent Advances,	4th Edition.
L3.2	William Popendorf	Industrial Hygiene Control of Airborne Chemical Hazards, Second Edition 2nd Edition	CRC Press Published July 12, 2019 Reference - 696 Pages - 332 B/W Illustrations
L3.3	Woolfolk, A., & Perry, N. E.	Child and adolescent development. Upper Saddle River, NJ: Pearson Education	(2012)
L3.4	Jeffery, W.H. van der Putten	Soil Borne Diseases of Humans	(2011). Luxembourg: Publications Office of the European Union. doi:10.2788/37199
L.3.5	National Institute of Nutrition	Dietary Guidelines – for Indians a Manual	Second edition -2011

6.2. Online Resourcers

E1	http://cpcbenvis.nic.in/
E2	http://www.who.int/ionizing_radiation/env/en/
E3	http://www.indiaenvironmentportal.org.in/category/1/thesaur us/environment/
E4	http://web.unep.org/unea/environmental-dimension-sdgs
E5	https://www.wbdg.org/pdfs/usace_lightinglevels.pdf
E6	2008 WHO report: safe water, better health – http://whqlibdoc.who.int/publications/2008/9789241596435_eng.pdf
E7	2008 WaterAid report – http://www.wateraid.org/documents/tackling_the_silent_killer_the_case_for_sa nitation.pdf
E8	2008 International year of sanitation – http://esa.un.org/iys/
E9	DFID policy – http://www.dfid.gov.uk/pubs/files/water-sanitation-policy-08.pdf
E 10	End Water Poverty – http://www.endwaterpoverty.org/
E 11	World Toilet Organisation – http://www.worldtoilet.org/
E 12	2008 WHO report: safe water, better health – http://whqlibdoc.who.int/publications/2008/9789241596435_eng.pdf
E 13	2008 WaterAid report – http://www.wateraid.org/documents/tackling_the_silent_killer_the_case_for_sa nitation.pdf
14 E	2008 International year of sanitation – http://esa.un.org/iys/

6.3. List of information and Education Technologies

6.3.1 Competence-based Educational Technologies

6.3.1.1	TRADITIONAL EDUCATIONAL TECHNOLOGIES - during practical classes textbooks and methodical works, lectures and additional scientific literature (article, monographs, recommendations, normative documents are used. For students' use instructions and recommendations in the field of hygiene a, development of logical thinking, skills in well-argumented presentation of material are provided. Lectures are delivered through multi-media equipment. Electronic versions of lectures and methodical books on different divisions of a discipline are available.
6.3.1.2	INNOVATIVE EDUCATIONAL TECHNOLOGIES – develop the ability of logical thinking, the ability to solves problems in different types of situational tasks, the ability of written and oral communication, systems approach to analysis and critical perception of medical information. These include electronic lectures with presentations. Visual aids, stands.
6.3.1.3	INFORMATION AND EDUCATION TECHNOLOGIES – Include computerized knowledge check systems, internet resources (databases, information and reference systems, repositories of any type of information), multimedia notebook, personal computers , research papers, presentations.

6.3.2 List of Information Reference Systems and Software

6.3.2.1	Electronic library system IPRbooks (www.WHO)
6.3.2.2	Electronic library of the Kyrgyz-Russian Slavic University (www.lib.krsu.kg)

7. COURSE (MODULE) LOGISTICS

7.1	The Department is located in Bishkek, micro district Alamedin-1 campus №12 MF KRSU
7.2	The Department is on the 1th floor: three classrooms with 36 seats
7.3	**Heard of Department office (1)**

7.4	Faculty room (2)
7.5	Laboratory room (3), all rooms are equipped with furniture, light and water equipment, etc.
7.6	A lecture hall of the Scientific and Production Centre for Preventive Medicine with 80 seats
7.7	Portable digital anemometer AP-1 (1 piece)
7.8	propeller-type anemometer (1 piece), luxmeter L 116 (1 piece)
7.9	Luxmeter SMART SENSOR AR823 (1 piece)

7.10	Portable hygrometer SMART SENSOR AR817 (piece.)
7.11	Aspiration hygrometer (1 piece)
7.12	Stationary hygrometer (1 piece)
7.13	Infrared thermometer for measuring body temperature SMART (2 piece)
7.14	Thermometer TH-603 (1 piece)
7.15	Katathermometer (1 piece)
7.16	Floor balance (1 piece)
7.17	Height meter (1 piece)

The planning sheet of discipline ANNEX 2

MODULE ASSESSMENT FOR THE DISCIPLINE INCLUDES:
1.Formative assessment: study material learned in classrooms (lectures, practical classes, including of attendance and activity) ' obligatory assignments done as student's individual work
2.Midterm assessment: checking the extent of acquired knowledge and skills regarding a module as a whole. Module test assignments are conducted in writen form and are an obligatory component of module assessment.
3.Midpoint assessment – a completed documented part of the discipline studied – testing acquisition of a set of closely related modules in the form of credit.

THE MAIN REQUIREMENTS FOR MIDPOINT ASSESSMENT
Students coming for a credit should bring with them record books which they give to the examiner at the beginning of a credit. The teacher give a pass (credit) without asking a student questions from the examination paper students have got more than 60 points during formative and midterm assessments.
At the midpoint test a student should give correct answers to theoretical questions of an examination paper and do situational assignments.
Students can use technical aids, reference and normative literature, visual aids, curricula.
Midpoint test marks:
min 20 points – KNOWELEDGE questions (if a student formulates the main notions correctly in his answers to questions)
20-25 points – assignments to check students 'competences skills and Expertise (if a student understands the problem presented in the examination paper and gives recommendations for its solution)
25-30 points - assignments to check students' competences skills and Expertise (if a student gives a complete answer on the assignment)

METHODICAL INSTRUCTIONS ON ORGANIZING THE STUDY OF THE DISCIPLINE:
Learning is comprised of classroom studies (72 hrs), including a lecture course, practical classes and individual work. A total of 108 hours. Methodical recommendations on the study of disciplines are given in methodical books of the department. There are available electronic versions of lectures and methodical instructions books on individual sections of the discipline. Methodical instructions and situational problems are repotted for each lesson (the fund of situational assignments, ANNEX 6). Students familiarize themselves with the Plan of Practical Classes. Practical classes are conducted according to methodical instructions. In preparing for practical classes students have access to the library funds of the University and the Department. Department-compiled methodical books, lectures as well as additional literature (articles, monographs, recommendations, normative documents) are available at the Department Office.
There are interactive assignments for students on selected units and topics, for example, on hygiene of hospitals, nutrition hygiene, recommendations for their performance are given in ANNEX 3 Students perform different assessing individual dietaries, calculating daily energy expenditures, assessing nutritional status. For the subject of hospital hygiene they perform a hygienic assessment of hospital design, dental polyclinics and rooms, make up protocols and reports on sanitary-hygienic study of enterprise. Students prepare synopses and presentations on various problems of hygiene and present brief repots at practical classes. To expand knowledge of hygiene, to develop logical thinking, skills in reasoned presentation of an issue, round-table discussions are arranged.
Tests are made up to check the final knowledge of the discipline. On passing a knowledge check by tests students are admitted to the take credit. Tests and check questions are given out to students beforehand (the fund of test assignments, ANNEX 1). The Department conducts research work with engagement of students on topical problems of hygiene. The Department's faculty develop and prepare for publication textbooks and teaching materials on different areas of hygiene and ecology. Current academic progress is assessed by topics assigned both to students' classroom work and individual work.

STUDENTS' INDIVIDUAL WORK

is supposed to be preparation for practical classes and includes the study of special literature on a specific topic (recommended textbooks, teaching aids, consulting materials published in monographs, specialized journals, on recommended medical websites); exploration-and-research studies with an aid of internet resources; preparing notes, making presentations at seminars, preparing brief overviews, multi-media presentations, conducting business games. Independent work is regarded as a kind of learning activity in a discipline and is done within the assigned student individual work hours. Every student is provided access to the training aids and instruction room of the department and to library funds of the university.

For each unit of a discipline, methodical recommendations for students and teaching guides for teachers are prepared.

Student activity in group work nurtures a sense of collectivism, personal responsibility and sociability.

Attention should be given to development of skills in communicating with patients. Work with patients contributes to the development of deontological behavior, accuracy, discipline.

A starting level of student the knowledge of credit session is determined by testing all topics learnt through computer- or paper-aided testing and by oral questioning on all topics learnt within the cycle. Current assessment of discipline learning is made in the course of practical classes using a variety of activities such as oral questioning, clinical discussions of cases, solving situation problems, photo problems and test assignments.

A sample list of assignments for individual students' work to increase their rating in the discipline is given in ANNEX 6.

REPORT WITH PRESENTATION. Preparing and writing:

Report in the form of a speech should not be the retelling of other authors' thought but be an attempt of problematization and conceptualization of a certain, rather narrow and concrete topic. All footnotes in a paper should be thoroughly checked for accuracy and corrects references. It is not allowed to include excerpts from works of other authors without referencing them, to retell other work relevant to your topic without referencing to it, to use other people's ideas without indicating a source. The same is good for internet sources. A complete address of a website should be indicated. Any plagiarism should be excluded. At the end of the paper there should be a complete list of all sources used.

Preparing a paper for a class.

The main stages for paper preparation:

•choosing a topic;

•consulting a teacher

•preparing a plan of a paper

•working with sources and literature, collecting material

•writing the text of a paper

•completing the test and giving it to a teacher before presentation, which demonstrates the readiness of a student for delivering a presentation, answering questions.

Topics for presentation are suggested by a teacher in the Fund of Instructive Tools.

Multimedia presentations is a kind of students' individual work on creating visual informational materials produced through of the PowerPoint software. This kind of work requires coordination of student's skills for collecting, systematizing, processing and selecting pieces of material' making a brief representation of the main issues of a topic in the electronic form. Creating presentations expands methods and tools for studying and representing learning materials develops students' computer skills. Presentations are prepared by students in the form of slides using the Microsoft PowerPoint program.

Requirements for students' preparation of a presentation and its defence in a class.

1. The topic of a presentation should be chosen by a student from the recommended list in the Fund of Instructive Tools and should be coordinated with a teacher and be relevant to a studied theme in a class.

2. Stages of presentation preparation
Making up a plan of the presentation (task setting; objectives of a given study)
Thinking out each slide (at first it can be written on paper), doing so it is important to answer questions:
- how the idea of this slide can contribute to the main idea of the whole presentation?
- what will be contained on a slide?
- what will be told?
- how will you move on to the next slide?

3. Making a presentation with in MS PowerPoint:
There is a sense in being neat. Slipshod slides (inconsistent fonts and indentions, misprints, typographic errors in formulas) make one suspect that a student is just as much careless about the content of the slides.
On a title page you introduce to the audience yourself and the topic of your presentation.
- The number of slides should not be more than 30.
- The optimal number of lines in a slide is 6 to eleven.
- It is a widespread mistake to read out a slide word-by-word. It is better that a slide gives detailed written information (definitions, formulas), and the content meaning is presented orally. The information on a slide can be more formal and strictly formulated than in actual speech.

Optimal switch speed is one slide in 1-2 minutes.
- Using in a presentation more figures, pictures, formulas, graphs, tables is preferred. Animation effects also can be used.

When explaining tables, you should mention what rows and columns stand for.
- Use only those symbols and notions, without which the main ideas of the presentation cannot be gotten across.
- In a brief report you cannot repeat one and the same idea even in different words – time is dear.
- Any phrase should be spoken with purpose. Then your presentation will be integral and leave a good impression.
- The last slide with conclusions in short presentations should not be pronounced.
- If there are many formulas on a slide, it is recommended to prepare it completely in MS Word (otherwise you will have to arrange and familiarize t formulas manually). It is convenient to make a multiplication sample – one slide with a large Word object Insert – Object – MS Word document, with needed dimensions and copy out of it the required number of slides.

The main font in the text and formulas should be changed to Arial or similar fonts, Times font does not look good at a distance. Be sure to set the main font size in MathType that is equal to the main font size in the text.
Never change the formula size by stretching its corner.

4. A student must prepare and deliver his presentation strictly in the time duration set by the teacher and on schedule.

5. Instructions to presenters.
- communicate new information;
- use technical aids;
- easily navigate in your topic;
- be able to discuss and answer questions quickly;
- comply with time limits: presentation – 10 min; discussion - 5 min;

It should be kept in mind that a presentation consists of three parts: introduction, the main part and conclusion.
An introduction helps the success of any topic. An introduction should contain:
- title of presentation;
- communicate, the main idea;
- the state of the art on the subject of a topic;
- brief listing of issues under review;
- lively and interesting manner of presentation;

The main part in which the presenter should bring out the essence of the topic under consideration is usually made by the principle of a report. The purpose of the main part is to present sufficient data's make the audience both interested in the topic and eager to get familiar with materials. The logical structure of the theoretical bloc should not be provided without visual aids, audio-visual- and visual media.
The concluding part is a clear-cut generalization and brief conclusions which the audience is always waiting for.

ESSAY (review paper)
Methodical recommendations on essay writing

Essay is a short systematic and consistent account of a certain issue or research work. It is a form of interpretation of the original text or several sources, so, essay, unlike notes, is a new independent text. The novelty of essay examination consists of new rendering and systematization of material, a special author's attitude in considering different points of view. Thus, the abstracting on which essay is based presents a coverage of a certain issue on the basis of classification, generalization, analysis and synthesis of one or several sources.
Speicific features of the abstracting essay: no comprehensive demonstration, comparisons, discourse or assessments; the abstracting essay gives an answer what the most interesting and important is contained in a given work on the question of concern.
Such an assay should not reflect subjective views of a reviewer on the issue under consideration. An assessment can be allowed only the last concluding part in the form of a summary.
The essay should possess: unity (of content, theme, style, linguistic usage), coherence (logical and formal-linguistic), structural arrangement (an introduction, body and conclusion, their optimum proportionality), content meaning completeness.

Stages of essay preparation
1.Choice of a problem, its importance' substantiation, formulation
2.Study of the main sources on your topic.
3.Making up a list of literature
4.Making notes of the material studied or its content description by theses.
5.Systematization of processed or selected information.
6.Defining the range of the main notions of the topic.
7.Refining the topic's theme and the main questions for analysis.
8.Developing the logics of investigation of the problem, plan design
9.Realizing the plan, writing an essay.
10.Self-analysis consisting of novelty in assessment , how deep the problem was touched upon, relevance of sources and the volume of your essay.
11.Checking the correctness of references.
12.Editorial correction of the text.
13.Correct formatting of the essay and checking the text for grammar and style.

Essay structure and content.

The least volume of the essay (review paper) should be 12 pages on A4 sheets. The number of pages may be less and should be determined depending on the topic.

The theme of the essay should be formulated literary well. The title of the essay should define the theme's distinct framework, not too wide and not too narrow (for instance, "Occupational hygiene" is not an acceptable title. The theme may be across two or more subjects, within one subject, within a programmer discipline or it may expand its content (examining the history of the problem, new theories, new aspects of the problem, new sources).

The essay of any type has usually the following structure:
-title page,
-contents with paragraphs and pages,
-introduction,
-body (divided into paragraphs/sections),
-conclusion,
-references,
-annexes (if applicable).

Requirements to introduction

Introduction should include a brief background to show importance of the theme of the essay, its scientific and practical interest. It also contains a brief review of literature, analyzes the strengths and weakness of previous studies. In introduction it is also important to indicate the aim of the paper and objectives to work through in order to achieve this aim. Usually one objective is given for one section. The length of introduction is usually 1-1.5 pages.

Requirements to the body of the paper

The body of the paper contains material selected by a student to support the key theses of the chosen topic. The content of the essay body should be logical, problem-based and theme-oriented. The essay body structure consists of sections which number and titles are determined by the author and the supervisor. Each section starts with an objective and ends with a conclusion.

References to authors whose attitudes and views are used in the paper should be indicated obligatorily. Citation and references should not replace the attitude and standpoint of the author of the essay. Grandiloquence, abuse of terms, extensive digressions, disproportionate lengthiness of individual sections and divisions are viewed as disadvantages of the essay body.

Requirements to conclusion

Conclusion of the essay or the summing-up of the work consists in brief and clear listing of conclusions, analysis of the achievement of the aim and objectives of the paper as set in introduction, it is also indicated here what new personal experience a student has acquired working on the essay. The volume is 1-1.5 pages.

Requirements to references

For your essay preparation, materials of modern sources (not less than 5) should be used. Sources should be listed in an alphabetical order. The main requirement to references is accuracy, bibliographic information is provided directly from a document described. Bibliography should include surname and initials, title of a source, place of publication, year of publication, number of pages. References should include all documents used in the essay regardless of media, including electronic editions and internet resources.

Various annexes can be put after the list of references (tables, diagrams, graphs, illustrations, etc.). Each annex starts on a new page with the word Annex and its number printed in the upper right-hand corner (e.g. Annex 1). If there is only one annex, it is not numbered. An Annex should have a title which is aligned in the centre and written in upper letter case and separated from the body of the text. Applications are not counted in the total number of pages. Page numbers are not printed.

Technical format of the essay

The essay should be typed using a computer on one side of A4 sheets of paper, 1.5 line interval. The font color should be black, Times New Roman, size 14 pt. The margins should be as follows: top and bottom – 20 mm, left – 30 mm, right – 10 mm. Indentation should be the same throughout the text and equal 1.25 cm. Indentation are recommended to be more frequent, presenting one complete thought in an individual paragraph. Text is aligned by width.

All pages should be numbered continuously throughout. Sheet number is printed in Arabic figures. Page numbering begins with a second page. Page number is not printed on the title page. Page numbers are printed at the bottom centre, without putting a dot.
Every structural part (title page, contents, introduction, section, etc.) starts on a new page. No periods are put at the end of headings aligned in the center. Headings should not be underlined and words in headings should not be hyphenated. The distance between the heading of the section and the following text should be one skipped line. No abbreviations can be used in the text (except the generally known ones).
In the text of an essay references should be made to a source your material was taken from because this shows the culture of treating other persons' thoughts and work. A bibliographic reference can be presented in full or in short form. A short reference intended only for document search (an object of the reference) is cited in the text as a number corresponding to a source in the list of publications and should be given in square brackets. For example, [12].
A reference given to point out an individual passage of the text of a document should include not only the reference number but also page number, where the cited passage can be found. This information is separated by a comma: [11, p. 105].
If the text is cited not by the primary source but by some other document, the reference begins with "Cited in". For example, [Cited in: 14, p. 181].
If there are multiple sources referenced, they are made into one complex bibliographic reference in which information is separated by semicolon with spaces before and after this bloc of information: [3; 14] or [9, c. 123; 15, p. 26].
The paper should be fastened.
The format of the title page is in ANNEX 7
Presentation essay
There are 3 types of the essay defense: classical, individual and creative
1. Classical presentation. Oral presentation of a student is concentrated on the main points:
•research theme and its importance/topicality;
•the range of sources and the main approaches to the problem,
•novelness (study of less known sources, proposing a new version, new approaches to the problem solving, etc.),
•the main conclusions from the content of the essay.
2. Individual defense. It shows personality aspects of student's work on the paper:
•reasons behind the choice of the topic,
•ways of how to work on the paper,
•original findings, personal judgments', interesting moments,
•personal importance of the effort,
•prospects for further research.
3. Creative defense should embrace:
•making a stand with documents and illustrative material on the research topic, providing comments on them,
•showing slides, video records, listening to audio-records prepared during information gathering and abstracting,
•vivid, original presentation of a fragment of the main part of the paper, etc.
It is important that a student presentation his paper should be able to tell about the importance of the main issues of the research, the aim and objectives, the literature reviewed, the structure of the main part of the essay, conclusions in the space of 7-10 minutes. Thus, this approach goes away from mechanical recital of the essay to the scientific support of the problem under consideration, after questions are asked on the presented topic.

While preparing for your class, it will be useful to consult the glossary (ANNEX 8)

Drawing up a CHART of sanitary-hygienic examination of health care facilities.