

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY
DEPARTMENT OF HYGIENE AND ECOLOGY No. 2

Methodical Materials

on the Course Unit

"Occupational Safety in the Field of Medicine"

For fifth-year students in specialty 7.110106 – Dentistry

Student _____

Faculty _____

Group _____

Kharkiv - 2017

Approved by the Academic Council of Kharkiv National Medical University.

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The evaluation system of students' progress

1. The organization of the educational process is carried out on credit-module system in accordance with the requirements of the Bologna process.

The current control is carried out at each practical lesson, in accordance with the specific objectives of the topic. **The final control** of section learning is carried out after it is completed. The assessment of the student's progress in the discipline is a ranking and is set in accordance with the grading scale on the ECTS system and the traditional scale adopted in Ukraine. Evaluation of module learning is carried out at the last practical lesson of the module in accordance with the level of training of students.

The distribution of points, which are awarded to students

No.	<i>Occupational Safety in the Field of Medicine</i>		Minimum number of points	Maximum number of points	<i>Filled in by student</i>	
					Mark	Points
1.	Section of the discipline 1	Subject 1	38	24		
2.	Section of the discipline 2.	Subject 2	38	24		
3.		Subject 3	38	24		
4.		Subject 4	38	24		
5.		Subject 5	38	24		
6.	Total number of points		190	120		
7.	ISW		10			
8.	Total		200	120		

2. Matching of the point scale to traditional assessment scale:

Point Scale	Traditional Scale
38	„5”
30	„4”
24	„3”
7	„2”

The maximum number of points - 200 points, that can be got by a student for current educational activity when learning the discipline, is calculated by multiplying the number of points that corresponds to "5" - 38 points, by the number of subject of practical lessons with the addition of points for an individual task (10 points) solved by the student.

The minimum number of points - 120 points that the student must score when studying the discipline, is calculated by adding the number of points scored per each topic (5 subjects). Getting the minimum number of points for module (120 points) is a prerequisite for putting down the mark "credited".

At the last practical lesson on the subject after the end of mastering the topic of the lesson, the teacher of the group announces the amount of points that each student group scored on the results of the current control and solving of individual tasks (if any). The student receives mark "credited" if he did not have missed practical lessons, and the number of points he scored is not less than the minimum, mark "Failed" if the student did not work off missed practical lessons and the number of points for the current control less than the minimum.

Students who received the mark "Failed" after the working off missed classes pass without fail the main (basic) questions (in writing) on the subject during individual consultative work of the teacher of appropriate academic groups. Repeated delivery of the credit is permitted not more than 2 times and is carried out in the permission from the dean's office.

Mark F_X , F ("2") is given to the students, who are not reclaimed, the module on the subject after completing its study. Score F_X ("2") is put to students who did not collect the minimum number of points for current educational activity due to missed classed or systematic failure of the curriculum. Evaluation F is put down to students who attended all lessons from the module, but did not collect the minimum number of points for current educational activity. This category of students can repeat the subjects, for which they have mark "2", but not more than two subjects, as well as getting additional points (10) for individual work.

Basic requirements of safety measures
«The Instruction on Safety of Life Activity»
For employees and students who work and study at the University
(approved by order of the Rector of KhNMU No. 412, 2008)

1. Instructing on safety of life activity is conducted by the teacher of the group before the beginning of the academic year.
2. Classes with students and post-graduates students are conducted on the basis of the internal regulations of the University and its rector's orders.
3. Very often accidents are caused by students' violations of the established rules of behavior and regulations. In this connection, one should:
 - be attentive when moving on the territory of the University;
 - study the location of the premises and their exits;
 - keep to the right at oncoming movement;
 - not run on the territory of the University;
 - not stand and go under any cargo which moves, as well as in places of possible fall of various subjects;
 - in class, be attentive, not engaged in unauthorized activities and not distract his/her associates.

It is FORBIDDEN for students of the University:

- to switch on and off (except for emergencies) machines and mechanisms, whose operating was not charged by the head of works;
- to taste and smell chemical substances;
- to lean or climb out of the windows of premises;

It is necessary to maintain cleanliness and carry out requirements of personal hygiene on the territory of the University, in its laboratories, lecture halls, sanitary and personal service premises.

CONTENTS

Basic requirements of safety measures

Section of discipline 1: General issues of occupational safety.

Subject 1: Legal and organizational fundamentals of occupational safety.

Section of discipline 2: Special issues of occupational safety in the field of medicine.

Subject 2: Hygienic characteristic of work environment of medical workers.

Subject 3: Accidents and damages at medical-preventive institutions, their investigation and registration.

Subject 4: Occupational hygiene and safety at medical establishments.

Subject 5: Fundamentals of occupational safety for medical workers.

Theoretical questions

Practical habits and skills

List of literature

Section of discipline 1.
General issues of occupational safety

Subject No. 1. Legal and organizational fundamentals of occupational safety

Date "___" _____ 20__;

Student's name, year, group _____

Urgency and motivational characteristic. Learn how to work with the regulatory and legal documentation is essential to the security professional activity of the doctor.

Learning objective:

Master the skills to work with the State System of normative-technical documents (NTD), to study the structure of regulatory documents, including legal reciprocal subordination to Constitution, the Laws, the State Standards of Ukraine, including the System of Safety Standards (SSS), normative and legal acts on labor protection, the State health standards and regulations, Building Norms and Rules (BNR), orders and methodical instructions on occupational safety in accordance with current laws and regulations.

As a result of studying the subject:

You should know:

1. The structure of NTD of Ukraine.
2. General principles of law mutual subordination for four levels of NTD.
3. Indicators of building codes and industrial microclimate in the area of labor protection.

Be able to:

1. Select the required technical documentation when solving the particular situation.
2. Assess the presence of the legal effect of NTD in Ukraine.
3. To use the Standards and other regulations when solving problems put by, make conclusions on the results of these tasks.

Questions for self-training

1. NTD and their classification.
2. Constitution of Ukraine, its importance in the formation of the system of NTD.
3. Causes and signs of legal liability in accordance with the current system of NTD of Ukraine.
4. State Standards of Ukraine, their role in the system of NTD.
5. Building Norms and Rules, their importance in the specification of Ukraine.
6. Sanitary Rules and Norms in the NTD of Ukraine.
7. Normative-legal acts on labor protection in the NTD of Ukraine.
8. Orders in the system of NTD of Ukraine.

Tasks for self-training

At home, the student should prepare answers to theoretical questions and define the following concepts:

Term	Definition
NTD	
State Standard	
Sanitary Rules and Norms	
Building Norms and Rules, State Sanitary Norms	

Class work – at the lesson, the student gets acquainted with the structure and purpose of various types of technical standards in Ukraine.

Initial and final test control - Tests of the open base

Recommended literature

1. Hygiene and ecology. Manual / under the edit. of prof. V. G. Bardov. – Vinnytsya: Nova Knyha, 2009. – 688 p.
2. Constitution of Ukraine.
3. Law of Ukraine “About provision of sanitary and epidemic well-being of population”, 1994
4. Law of Ukraine “About protection of population from infectious diseases”, 2000
5. Law of Ukraine “About protection of population and territories from extreme situations of technogenic and natural character”, 2000

Teacher's signature _____

Section of discipline 2:
Special issues of occupational safety in the field of medicine.

Subject No. 2: Hygienic characteristic of work environment of medical workers

Date "___" _____ 20___

Student's name, year, group _____

Urgency and motivational characteristic. The work of medical professionals in present-day life is the most difficult, stressful and important work of all the activities. Some professional groups of health workers in their daily activities have their own specific conditions, which can cause morbidity, including occupational, contribute to the emergence of fatigue and overfatigue, disability. In order to prevent adverse effects of working conditions on health and capacity for work, medical workers should be aware of the impact of some factors on the health and capacity for work, as well as to follow safety rules.

Learning objective:

1. Learn the classification of hazards.
2. Get acquainted with the working conditions of dentists.
3. Learn the basic techniques and criteria of sanitary and hygienic assessment of working conditions of medical workers.
4. Study the classes of working conditions according to the indices of severity, intensity, the hazards and risks of labor.
5. Learn the concept of job evaluation on working conditions.

As a result of studying the subject:

You should know:

1. Harmful factors and hazards that accompany the work of medical workers and the characteristics of their impact on the health of dentists.
2. The main provisions of the Order of Ministry of Health of Ukraine "About approval of hygienic classification of labor on indices of harmfulness and danger of factors of industrial environment, weight and intensity of labor processes."
3. Personal protection equipment of the dentist.

Be able to:

1. Use the requirements of laws and regulations for application of methods and means of protection of labor in the field of medicine.
2. Identify occupational hazards in the workplace of dentists and give a hygienic assessment to them.

Questions for self-training

1. To get acquainted with the laws and regulations for occupational safety of medical workers.
2. Examine the Order of MH of Ukraine "About approval of hygienic classification of labor on indices of harmfulness and danger of factors of industrial environment, weight and intensity of labor processes."

Tasks for self-training

At home the student should:

- Prepare answers to theoretical questions:

1. The working environment. Classification of harmful factors and hazards.
2. Hygienic features of working conditions and health state of dentists.
3. The concept of weight, intensity, harmfulness and danger of work.
4. The goal, objectives and content of the certification of workplaces on working conditions.
5. Measures for the prevention of occupational and occupationally conditioned diseases of medical workers.

- To define the following concepts:

Term	Definition
Labor conditions	
Harmful factor-	
Hazard	

Class work - solve the situational task and record its solution.

Task.

When studying the working conditions of a dentist, substances with high gain mechanism of toxicity are discovered in the working area, their concentrations 1.5 times exceeded MPC, and pathogens - infectious agents.

Determine the class of the working conditions in accordance with the "Hygienic Classification of Labor":

Initial and final test control - Tests of the open base

Recommended literature

1. Hygiene and ecology. Manual / under the edit. of prof. V. G. Bardov. – Vinnytsya: Nova Knyha, 2009. – 688 p.
2. Building Norms and Rules II-69-78 "Medical-Preventive Establishments".
3. Law of Ukraine "About protection of labor"
4. Hygienic Classification of Work.
5. State Standard 12.1.005-88 "Air of the Working Zone"
6. State Sanitary Norms of General and Local Vibration.
7. Building Norms and Rules "Natural and Artificial Illumination"
8. Order of Ministry of Health No. 555 "About medical check-ups of workers and drivers"
9. State Sanitary Norms of occupational noise, ultrasound and infrasound
10. State Sanitary Norms of microclimate of industrial premises.

Teacher's signature _____

Subject No. 3. Accidents and damages at medical-preventive institutions, their investigation and registration.

Date " ____ " _____ 20__;

Student's name, year, group _____

Urgency and motivational characteristic. The intensive development of science and technology, the achievement of which are used in medical practice, lead to a constant risk for workers and are linked to acute occupational diseases, poisonings, burns, electric shock, accidents, fires, contact with infected blood, sputum, etc. The future doctors should be able to evaluate and adjust their own working conditions, and in accidents and emergencies - provide first aid to the victims and inform the department heads.

Learning objective

1. Formation in future professionals the knowledge, skills and competencies in the investigation of accidents and emergencies at medical establishments and organizing measures for prevention of accidents, injuries and occupational diseases.
2. Getting acquainted with the basic provisions of the Law of Ukraine No. 36 dated 01.07.93 and changes amended by the Act of 16.10.2012, "About collective treaties and agreements."

As a result of studying the topic:

You should know:

1. The list of major accidents and damages that may occur at medical-preventive establishments, the procedure of their investigation and registration.
2. Specimen documents to be completed during investigation of accidents, occupational diseases and damages at medical-preventive institutions: Occupational accident certificate, form Ф-Н-1; Urgent notification about a visit of a casualty with reference to an occupational accident; Certificate of investigation of an accident (damage), which has taken place, form Ф-Н-5; Notification about consequences of an occupation-related accident; Notification about an occupational disease (poisoning), form II-3; Certificate of investigation of an occupational disease (poisoning), form II-4).

You should be able to:

1. Investigate accidents and damages, use the appropriate regulatory and guidance documents.
2. Recommend and introduce measures to prevent accidents and damages, diseases and poisonings, evaluate their effectiveness.
3. Properly execute the necessary documents to investigate accidents, occupational diseases and poisonings.

Questions for self-training

1. Measures to prevent cases of occupational diseases, accidents, injuries among medical workers.
2. The collective and labor agreement as a reflection of labor protection legislation.
3. Social Insurance Fund against accidents at work and occupational diseases.
4. The requirements for personal protection equipment and work wear of medical workers.
5. General safety requirements for production equipment and processes in hospitals. Safe use of pressure equipment and cryogenic technology.
6. Electrical safety. The conditions under which a person may get electrical shock.
7. Fire prevention in the design and operation of medical-preventive establishments and medical equipment.

Tasks for self-training

At home the student should prepare answers to theoretical questions and define the following concepts:

Term	Definition
Accident	
Catastrophe	
Critical objects (systems)	

Class work - solve the situational task and record its solution.

Task No. 1.

During surgery, a surgeon hurt his hand with a scalpel contaminated with blood of HIV \ AIDS patient with a "drip" release of blood.

What measures should fulfill the doctor at such professional accident?

Task No. 2.

A fire occurred in one of the rooms of the dental clinic, due to a short-circuit of electric current. There were 12 patients and 12 staff members at this time in 8 offices and living room. The clinic is located at the first floor of an apartment house. The dentist was the first to draw attention to the fire.

What main measures should the doctor, and later the head of the dental clinic, carry out in this case?

Initial and final test control - Tests of the open base

Recommended literature

1. Hygiene and ecology. Manual / under the edit. of prof. V. G. Bardov. – Vinnytsya: Nova Knyha, 2009. – 688 p.
2. Building Norms and Rules II-69-78 "Medical-Preventive Establishments".
3. Law of Ukraine "About protection of labor"
4. Hygienic Classification of Work.
5. State Standard 12.1.005-88 "Air of the Working Zone"
6. State Sanitary Norms of General and Local Vibration.
7. Building Norms and Rules "Natural and Artificial Illumination"
8. Order of Ministry of Health No. 555 "About medical check-ups of workers and drivers"
9. State Sanitary Norms of occupational noise, ultrasound and infrasound
10. State Sanitary Norms of microclimate of industrial premises.

Teacher's signature _____

Subject No. 4. Occupational hygiene and safety at medical establishments

Date "___" _____ 20__;

Student's name, year, group _____

Urgency and motivational characteristic. Hygiene and protection of labour at medical establishments are linked to the fact that the medical personnel is affected by physical, chemical, biological, social, architectural and planning factors that account for occupational and occupationally conditioned diseases, including those of infectious nature.

Learning objective

1. Consolidate students' knowledge about hygienic requirements to the location, planning, and sanitary-and-antiepidemic regimen of medical-preventive establishments of dental profile based on the study of normative documents.
2. Get acquainted with the basic harm of the working environment and occupational injuries and diseases of medical workers, including dentists, safety requirements during their work.
3. Get acquainted with the influence of industrial hazards on the body of doctors, legislative, organizational, preventive, anti-epidemic and technical measures of labor protection and prevention of occupational diseases of dentists.

As a result of studying the topic:

You should know:

1. Sanitary-hygienic requirements to planning, operating mode and anti-epidemic regime of medical-preventive establishments and dental surgeries.
2. Basic Laws of Ukraine in the field of hygiene and protection of labor.
3. Classification and characteristics of occupational hazards.
4. Measures to reduce the adverse effects of hazards of industrial microclimate of dentists.

Be able to:

1. Using the construction drawings of situational and general plan, identify and assess arrangement and zoning of the area of medical-preventive establishments, projected taking into account the objects located around the ground area and the "wind rose".
2. Using the plans and sections of buildings, identify and assess compliance with hygienic standards for the area, cubic capacity, sanitary improvement of dental surgeries.
3. Identify the key factors of the working environment and working process, which could affect adversely the workers, identify and evaluate the signs of its effects on the body.
4. Substantiate and introduce health-improving sanitary-hygienic and sanitary anti-epidemic measures of safe working conditions.

Questions for self-training

1. Preliminary sanitary supervision of the design and construction of medical-preventive establishments, its stages. Components of the project.
2. Hygienic value of the interior planning of buildings of medical establishments and dental rooms to ensure hygiene and protection of labor.
3. Personal hygiene of patients and medical staff in the health system and provision of favorable working conditions and the prevention of nosocomial infections and occupational diseases.
4. Articles of the Constitution of Ukraine on occupational safety.
5. Health legislation in the field of protection of labor. The Labor Code (LC), its main components.
6. Hygienic classification of labor in terms of hazards and risks in the work environment, the weight and intensity of the work process. SN 3.3.5-3.3.8; 6.6.1-083-2001
7. Physical production hazards, their classification, the importance in occupational pathology.
8. Chemical production hazards, their classification, the importance in occupational pathology.
9. Biological industrial hazards, their classification, the importance in occupational pathology.
10. Psychophysiological industrial hazards, their classification, the importance in occupational pathology.
11. Methods and means for prevention of occupational diseases and protection of labor in the workplace.

Tasks for self-training

At home, the student should prepare answers to theoretical questions and define the following concepts:

Term	Definition
Optimal working conditions	
Acceptable working conditions	
Hazardous working conditions -	

Dangerous (extreme) conditions of labor	
Nosocomial infections	

Class work - solve the situational task and record its solution.

Task No. 1.

When determining the parameters of microclimate in winter, it is revealed in the dentist's office that the air temperature is +17 °C, air relative humidity 75%, air velocity - 0.5 m/s. In the sampled air, the concentrations of mercury vapor and mercury amalgams 1.5 times exceed the maximum allowable concentrations. The concentration of CO₂ per 1 m³ is 0.15%, oxidation - 10 mg O₂/m³, microbial number - 4500 CFU/m³, and Hemolytic streptococcus - 70 CFU/m³. Assess the working conditions, according to the report, work out measures to prevent harmful effects of the identified factors.

Optimal parameters of microclimate, MPC of mercury vapor and indices of cleanliness of room at medical-preventive establishments

Index	Normative value for cold and transitive season	Conclusion
Air temperature, °C	20 – 22	
Air relative humidity, %	45 – 30	
Air velocity, m/s	under 0.2	
Maximum single concentration of mercury vapor, mg/m ³	under 0.01	
CO ₂ concentration, %	under 0.07	
Oxidability, mg O ₂ /m ³	under 4	
Total bacterial count, CFU/m ³	under 2000	
Hemolytic streptococcus, CFU/m ³	under 10	

Conclusion:

Task No. 2.

In the dentist's room, therapist, there are four chairs, which are placed in two rows parallel to the light-carrying wall. Each workplace has a universal dental unit. Assess the correct placement of chairs, the adequacy of the equipment.

Initial and final test control - Tests of open base

Recommended literature

1. Hygiene and ecology. Manual / under the edit. of prof. V. G. Bardov. – Vinnytsya: Nova Knyha, 2009. – 688 p.
2. Building Norms and Rules II-69-78 "Medical-Preventive Establishments".
3. Law of Ukraine "About protection of labor"
4. Hygienic Classification of Work.
5. State Standard 12.1.005-88 "Air of the Working Zone"
6. State Sanitary Norms of General and Local Vibration.
7. Building Norms and Rules "Natural and Artificial Illumination"
8. Order of Ministry of Health No. 555 "About medical check-ups of workers and drivers"
9. State Sanitary Norms of occupational noise, ultrasound and infrasound
10. State Sanitary Norms of microclimate of industrial premises.

Teacher's signature _____

Subject No. 5. Fundamentals of occupational safety for medical workers

Date " ____ " _____ 20__;

Student's name, year, group _____

Urgency and motivational characteristic. Industrial safety of health workers is a guarantee of the health of the doctor and patient, a necessary condition for the prevention of accidents, damages and injuries.

Learning objective

1. To form students' knowledge of the safety requirements of technological equipment and technological process at medical-preventive establishments.
2. To get acquainted with the concept of electrical safety and requirements of operating electrical equipment at medical-preventive establishments.
3. To learn the basics of fire safety, basic means and arrangements for fire safety at production site.

As a result of studying the topic:

You should know:

1. General safety requirements for production equipment.
2. To know the requirements of electrical safety and operation of electrical equipment.
3. General requirements for fire safety by objects of protection for different purposes at different stages of the production cycle.
4. Know the current NTD relating to the requirements of fire safety, electrical safety and electric equipment operation of various establishments.

Be able to:

1. Identify the key factors of the working environment and working process, which could adversely affect the workers, to identify and evaluate the signs of its effects on the body.
2. Substantiate and introduce health-improving sanitary-hygienic measures on safe working conditions.

Questions for self-training

1. Electrical safety. Classification of areas according to the degree of danger of electrical shock. Conditions of electric shock to persons. Safe operation of electric equipment: power protection means and measures.
2. State fire control. Fire prevention in the design and operation of medical-preventive establishments and medical equipment.
3. Indicators of highly explosive properties of materials and substances. Categories premises by explosion hazard. Classification of explosive and combustible areas and zones. Refractoriness of building structures and materials.
4. Main means and measures to ensure fire safety of production site. Fire alarm system. Means of fire fighting.
5. Personnel actions in case of fire. Safe evacuation of personnel. Ensuring and monitoring of fire safety at work sites. Learning the rules of fire safety of workers of medical-preventive establishments.
6. Types of instruction. The order of instructions for employees. Instructions on safety for students and medical workers.
7. Safety requirements for the operation of the basic medical equipment.

Tasks for self-training

At home, the student should prepare answers to theoretical questions and define the following concepts:

Term	Definition
Fire safety system	
Electrical Safety	
Traumatism	

Class work - solve the situational task and record its solution.

Task.

When determining the level of fire safety work required level of fire safety in accordance with standardized systems must be no possibility of influence of harmful factors in terms of one person not less than $P = 0.9999$, and acceptable levels of fire safety for workers should be no more than a millionth the likelihood of exposure to harmful factors of fire in excess of the limit value for the year, based on each person. Identify the main stages of the calculation in accordance with GOST 12.1.004-91. Develop guidance on occupational safety for healthcare workers.

Initial and final test control - Tests of open base

Recommended literature

1. Hygiene and ecology. Manual / under the edit. of prof. V. G. Bardov. – Vinnytsya: Nova Knyha, 2009. – 688 p.
2. Building Norms and Rules II-69-78 “Medical-Preventive Establishments”.
3. Law of Ukraine “About protection of labor”
4. Hygienic Classification of Work.
5. State Standard 12.1.005-88 “Air of the Working Zone”
6. State Sanitary Norms of General and Local Vibration.
7. Building Norms and Rules “Natural and Artificial Illumination”
8. Order of Ministry of Health No. 555 “About medical check-ups of workers and drivers”
9. State Sanitary Norms of occupational noise, ultrasound and infrasound
10. State Sanitary Norms of microclimate of industrial premises.

Teacher's signature _____

List of questions for the credit on the discipline "Occupational Safety in the Field of Medicine"

Theoretical questions

Section of discipline 1. General issues of occupational safety.

1. Basic terms and definitions in the field of labor protection, working conditions, occupational hazards, safety hazard, safe working conditions, workplace safety, etc.
2. Subjects and objects of labor.
3. Current state of labor protection in Ukraine and abroad.
4. Common issues of safety in medicine.
5. The legal basis for the protection of labor (the Constitution of Ukraine, the Labor Code, the Law of Ukraine "On labor protection").
6. Normative-legal acts on safety: definition, basic requirements and characteristics. The structure of regulations on labor protection. Registry of regulations on labor protection.
7. National standards of Ukraine on protection of labor. Occupational safety standards system (OSSS). Sanitary, building norms and other documents on the nation-wide health and safety.
8. Statements on labor protection, working in the organization, their composition and structure. Labor safety instructions. Development and approval of regulations on labor protection, working in the organization.
9. Responsibility of officers and employees for violation of labor protection legislation.
10. Social partnership as a principle of the legislative and regulatory provision of labor protection. Social dialogue in the European Union.
11. International standards of social responsibility. Standard SA 8000 "The social responsibility." The international standard ISO 26000 "Guidance on social responsibility."
12. EU legislative framework for the protection of labor. EU directives on health and safety. Framework Directive 89/391/EU "On the introduction of measures to encourage improvements in the safety and occupational hygiene of workers."
13. The elements of the OSH management system, the international standard OHSAS 18001:2007.
14. Labor standards of the International Labour Office. ILO Conventions and Recommendations. The main ILO Conventions on occupational safety.
15. International cooperation in the field of occupational safety. The main areas of cooperation. Organization of the United Nations. World Health Organization. The International Atomic Energy Agency. The International Labour Office. The European Union. Commonwealth of Independent States.
16. Administration of occupational safety, government oversight and public control of occupational safety in Ukraine. The bodies of state supervision of labor protection of their basic rights and powers. Public control of compliance with legislation on health and safety.

Section of discipline 2. Special issues of safety in the field of medicine.

17. Sectoral programs to improve the safety, occupational hygiene and the working environment. Regulations on the organization of management system in the industry. Ministry of Health Order No. 268 dated 30/09/94.
18. The structure, main functions and tasks of the OSH management in medical-preventive establishments. The main tasks and functions of occupational health services. Rights and Duties of occupational health services.
19. Public control of occupational safety in health care settings. Persons on occupational safety authorized by employees, their rights and duties.
20. The Commission on safety in medical-preventive establishments. Main tasks and rights of the Commission.
21. Offices of industrial safety and labor protection, the main tasks and directions of the offices.
22. Planning for health and safety. Types of planning and monitoring of health and safety. Identification, assess and reduce the risks of dangerous events. Registration and analysis of indicators of health and safety. Plans for localization and liquidation of emergency situations and accidents. Stimulation of occupational safety.
23. Principles of organization and types of training to occupational safety. Education issues of occupational safety officials.
24. Training in issues of health and safety. Types of instruction. The order of instruction for employees. Instruction on safety for students and health workers.
25. The working environment. Classification of harmful and hazardous industrial factors.
26. Hygienic characteristics of working conditions and health status of doctors of dental profile.
27. Basic methods and criteria for hygienic assessment of working conditions of health workers. The concept of gravity, tension, hazards and risks of labor.
28. Certification of working conditions at workplaces. The goal, objectives and content of the assessment. Work organization and procedure of job evaluation. Chart of working conditions.
29. Investigation and registration of occupational accidents. Investigation and registration of accidents outside work.
30. Injuries, acute and chronic occupational diseases and poisoning in the field of medicine.

31. Measures for the prevention of accidents, injuries and diseases of medical workers.
32. Collective labor agreements as a reflection of labor protection legislation. The Law of Ukraine "On collective treaties and agreements" and its contents. Order of the Ministry of Labour and Social Policy of Ukraine "On ratification of the form of the labor contract between workers and physical person". The signing of the labor contract on the specific types of work and the characteristics of functional responsibilities. Regulation of labor in the collective agreement. The employment contract.
33. Social Insurance Fund against accidents at work and occupational diseases. The Law of Ukraine "On obligatory state social insurance from accident at work place and occupational disease, which caused disability". Indemnification for victims in the workplace.
34. Hygienic requirements for the design and construction of medical-preventive establishments. Safety requirements for the operation of the basic medical equipment.
35. Measures to reduce the physical and neuro-psychological overload of medical professionals. The scientific organization of labor at medical-preventive establishments. The rational organization of the workplace and the furniture. The main way to prevent the occurrence of fatigue.
36. Measures to reduce the adverse effects of physical factors on the health of workers. Requirements for the microclimate, noise, vibration, ultrasound, light, and UV, laser and electromagnetic, ionizing radiation. Requirements for video terminals and personal computers.
37. Measures to reduce the adverse effects of chemical factors on the health of workers. Ways to prevent contamination of workplace air with harmful chemicals.
38. Measures for the prevention of harmful effects of biological factors. Sanitary-hygienic and anti-epidemic regime of the hospital. Prevention of nosocomial infections as a part of occupational safety in medicine.
39. The organization of air in rooms of medical-preventive establishments, ventilation.
40. Protection of labor of medical personnel in the individual structural units of medical-preventive establishments (operating unit, radiodiagnostic units, physical therapy offices, pathology departments and morgues).
41. Guarantees of the rights of workers on occupational safety, benefits and compensation for the heavy and hazardous working conditions. Obligations of employees to comply with the requirements of normative and regulations on labor protection.
42. Occupational safety of women, non-aged minors, people with disabilities.
43. Medical examinations of medical workers.
44. The requirements for personal protective equipment and work clothes of medical workers.
45. The colors, safety signs and warning markings.
46. General safety requirements for production equipment and processes in hospitals. Safe use of pressure systems and cryogenic equipment.
47. Electrical safety. Classification of premises on the degree of danger of electrical shock. Conditions of affection of human with electric shock. Safe operation of electrical installations: electrical safety devices and activities.
48. State fire control. Fire prevention in the design and operation of medical-preventive establishments and medical equipment.
49. Indicators of highly explosive properties of substances and materials. Categories of premises by explosion. Classification of explosive and combustible areas and zones. Refractoriness of building structures and materials.
50. Main means and measures to ensure fire safety of production site. Fire alarm system. Fire-extinguishing means.
51. Personnel actions in the event of a fire. Safe evacuation of personnel. Ensuring and monitoring of fire safety at work sites. Learning the rules of fire safety of workers of medical-preventive establishments.

Practical skills

1. Apply the requirements of laws and regulations for the implementation of methods and means of protection of workers' health at medical-preventive establishments.
2. Apply basic forms of organization and management of health and safety of health workers.
3. Demonstrate occupational hazards in the working environment workplace of medical workers and give them a hygienic assessment.
4. To evaluate the organization of the workplace, furniture, medical equipment in hospitals.
5. Predict the possibility of occupational, professionally-related diseases, accidents, emergencies.
6. To certify the working conditions of labor in terms of severity, intensity, the hazards and dangers of the production process.
7. Prove and develop plan of measures to improve the health conditions of medical workers and the control of their effectiveness.
8. Conduct monitoring compliance with the rules of personal hygiene and use of personal protective equipment for medical workers.
9. Conduct an investigation and registration of accidents, acute and chronic occupational diseases, injuries in the field of medicine.
10. Organize events of fire and electrical safety.
11. Develop instructions on occupational safety for medical workers.
12. Conduct training and examination on occupational safety.