

SYLLABUS

INTERNATIONAL EUROPEAN
UNIVERSITY



SCHOOL OF
MEDICINE

LABOR PROTECTION
IN THE INDUSTRY

2023



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Course Name 

 LABOR PROTECTION IN THE INDUSTRY

Lecturer (s) 

 Phd in biology Associate Professor Kovalenko Viktoriia

Lecturer's profile 

 <https://medicine.ieu.edu.ua/pro-yemsh/kafedry/kafedra-fundamentalnykh-dystsyplin>

Consultations

online consulting  Fourth Tuesday of the month 15:00-16:00

offline consulting  Second Tuesday of the month 15:00-16:00

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Discipline page 

 <https://medicine.ieu.edu.ua/proyemsh/kafedry/kafedra-fundamentalnykh-dystsyplin>

Form of final control

test	def. test	exam
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1 Brief discipline annotation

The discipline "Labor protection in the industry" provides a study of the system of legal, socio-economic, organizational, technical, sanitary and hygienic and therapeutic and preventive measures and means aimed at preserving the life, health and ability to work of health care workers in the course of labor activity.

2 Background for studying discipline

The discipline "Labor protection in the industry" has interdisciplinary links with the following disciplines: "Medical and biological physics. Medical Informatics", "Medical Chemistry", "Medical Biology", "Physiology". The knowledge gained is necessary in the study of clinical professional and practical disciplines and in further professional activities.

3 Goal and objectives of the discipline

The purpose of teaching the discipline "Labor protection in the industry" is:

- formation of knowledge, skills and competencies in future specialists to ensure effective management of occupational safety and health in the medical industry;
- creation of favourable conditions for the production environment and occupational safety in the industry in accordance with applicable laws and regulations.

The main objectives of the discipline "Occupational Health and Safety in the Healthcare Industry" are:

- Ensuring the preservation of life, health and working capacity of medical workers in the workplace.
- Fostering moral and ethical values aimed at preventing occupational injuries and the occurrence of occupational and work-related diseases.
- Development and application of a set of legislative, organizational, engineering, sanitary, hygienic, therapeutic and other measures.
- Creation of favourable conditions for the production environment and labor safety in accordance with the applicable laws and regulations

4 Learning outcomes

PLR 1

Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integrating knowledge. To be responsible for professional development, the ability to further professional training with a high level of autonomy.

PLR 2

Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care.

PLR 3

Specialized conceptual knowledge that includes scientific achievements in the field of health care and is the basis for research, critical thinking in the field of medicine and related interdisciplinary issues.

PLR 10

Determine the necessary work, rest and nutrition regimen based on the final clinical diagnosis, in compliance with relevant ethical and legal standards, by making an informed decision based on existing algorithms and standardized schemes.

PLR 21

Find the necessary information in professional literature and databases of other sources, analyze, evaluate and apply this information.

4 Learning outcomes

PLR 22

Apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex healthcare problems.

PLR 24

To organize the necessary level of individual safety (own and of the persons under his/her care) in the event of typical dangerous situations in the individual field of activity.

PLR 25

Clearly and unambiguously communicate your own knowledge, conclusions and arguments on health care and related issues to specialists and non-specialists.

PLR 27

Communicate fluently in the state language and in English, both orally and in writing, to discuss professional activities, research and projects.

5 ECTS credits

3 ECTS credits / 90 academic hours, of which lectures - 16, practical work - 16, independent work - 58 hours.

6 Course Content

Titles of content sections and topics	Number of hours			
	Total	Among them		
		l	p	i.w.
Section 1. General issues of labor protection Content section 1. General issues of labor protection				
Topic 1: Legal and organizational framework for labor protection.	9	2	2	5
Topic 2. Organization of labor protection in medical institutions and higher medical education institutions.	10	2	2	6
Topic 3. Hygiene and physiology of work, importance for creating safe working conditions safe working conditions.	10	2	2	6
Section II. Peculiarities of working conditions in the medical field Content Section 2. Peculiarities of working conditions in the medical sector				
Topic 4. Professional hazards in the performance of functional duties of healthcare workers.	10	2	2	6
Topic 5. Hygienic characteristics of working conditions and health status of healthcare workers.	8		2	6
Topic 6. Accidents and incidents in healthcare facilities, their investigation and accounting.	10	2	2	6
Section III. Special issues of labor protection in the medical field Content section 3. Special issues of labor protection in the medical field				
Topic 7. Labor protection in medical institutions.	8		2	6
Topic 8: Labor protection in certain structural units of health care facilities and higher medical education institutions.	10	2	2	6
Topic 9: Dangerous infectious diseases in the work of healthcare professionals.	8	2		6
Topic 10. Fundamentals of occupational safety of healthcare workers.	10	2	2	6
OF THE WHOLE DISCIPLINE	90	16	16	58

1. Basic terms and definitions in the field of labor protection: labor protection, working conditions, harmful production factor, hazardous production factor, safe working conditions, workplace, safety, etc.
2. Subjects and objects of labor protection.
3. The current state of labor protection in Ukraine and abroad.
4. General issues of labor protection in medicine.
5. Acts on labor protection in force in the organization, their composition and structure. Instructions on labor protection. Development and approval of labor protection acts in force in the organization.
6. Responsibility of officials and employees for violation of labor protection legislation.
7. Social partnership as a principle of legislative and regulatory support of labor protection. Social dialogue in the European Union.
8. State Labor Service of Ukraine, its structure and functions.
9. Risk-oriented approach in assessing the potential and real danger of harmful effects of factors of the production environment on human health.
10. Identification, assessment and reduction of risks of dangerous events, quality management and formation of a safety culture.
11. Collective and labor agreements as a reflection of labor protection legislation. The Law of Ukraine "On Collective Bargaining Agreements and Agreements" and its content. The Order of the Ministry of Labor and Social Policy of Ukraine "On Approval of the Form of Employment Agreement between Employees and an Individual". Conclusion of an employment agreement based on the specifics of the type of work and peculiarities of functional duties. Regulation of labor protection issues in a collective bargaining agreement. Hiring under a contract.
12. Liability of officials and employees for violation of labor protection legislation.
13. Sectoral programs for improving the state of safety, occupational health and the production environment. Regulations on the organization of the occupational health and safety management system in the industry. Order of the Ministry of Health of Ukraine No. 268 of 30.09.94 "On the Labor Protection Service of the Ministry of Health".
14. Structure, main functions and tasks of occupational health and safety management in healthcare facilities. Occupational health and safety service of a health care facility (HCF), its structure, number, main tasks and functions. Rights and obligations of employees of the labor protection service.
15. Commission on labor protection in medical institutions, main tasks and rights. Industrial safety and labor protection offices, main tasks and areas of work.
16. Planning of labor protection measures. Identification, assessment and reduction of risks of dangerous events, quality management and safety culture. Accounting and analysis of labor protection indicators. Plans for localization and elimination of emergencies and accidents.
17. Principles of organization, types of training and testing of knowledge on occupational safety and health. Briefings on labor protection, their types. Stimulation of labor protection.
18. Hygiene and physiology of labor - definition, purpose, objectives, research methods.
19. Classification of dangerous and harmful production factors.
20. The main physiological signs of physical and mental labor. Physiological changes that occur in the organs and systems of the human body during work.
21. Human performance, dynamics and reasons for its change during the working day.
22. Physiological essence of fatigue, existing theories and modern understanding of the mechanism of its occurrence.
23. Ways to prevent the development of fatigue. Methods of developing rational work and rest regimes.
24. Classification of labor of medical workers.
25. Psychophysiological harmful and dangerous factors of the working environment and their impact on the health of health workers.

26. Physical harmful and dangerous factors of the production environment and their impact on the health of health workers.
27. Chemical harmful and dangerous factors of the production environment and their impact on the health of health care workers.
28. Biological harmful and dangerous factors of the production environment and their impact on the health of health care workers.
29. Hygienic features of working conditions and health status of doctors of various profiles (surgical, therapeutic, dental, etc.).
30. Peculiarities of occupational and industrial morbidity of medical workers.
31. Classification of labor of medical workers.
32. Psychophysiological harmful and dangerous factors of the working environment and their impact on the health of health workers.
33. Safety requirements for the operation of basic medical equipment.
34. Measures to reduce the physical and neuropsychological overload of health care workers. Scientific organization of work in the hospital. Rational organization of the workplace and furniture. The main ways to prevent fatigue.
35. Measures to reduce the adverse effects of physical factors on the body of health care workers. Requirements for microclimate.
36. Measures to reduce the adverse effects of noise, vibration, ultrasound.
37. Requirements for industrial lighting of workplaces of medical workers.
38. Requirements for ultraviolet radiation, electromagnetic fields of radio frequencies and laser radiation at the workplaces of healthcare workers.
39. Electrical safety. Classification of premises according to the degree of danger of electric shock.
49. Conditions of human electric shock. Safe operation of electrical installations: electrical protective equipment and measures.
41. Fundamentals of fire safety. State fire supervision. Fire prevention in the design and operation of medical facilities and medical equipment.
42. Indicators of explosive and fire hazardous properties of materials and substances. Categories of premises by explosion and fire hazard. Classification of explosive and fire hazardous premises and areas. Fire resistance of building structures and materials.
43. Basic means and measures to ensure fire safety of the production facility. Fire alarm system. Fire extinguishing equipment.
44. Personnel actions in the event of a fire. Ensuring safe evacuation of personnel. Ensuring and monitoring the state of fire safety at production facilities. Training in fire safety rules for employees of the hospital.
45. Socio-economic prerequisites for the use of women, adolescents and older people in health care facilities.
46. The main physiological and anatomical features of the body of women, adolescents and older people, which determine the increased sensitivity to harmful factors of the production environment.
47. Influence of factors of the production environment on the body of women. The difference between the sensitivity of the female and male organism to harmful factors of the production environment. Long-term effects of exposure to harmful factors of the production environment.
48. Features of the health status of women, adolescents and older people in health care facilities.
49. Definition
50. Trends in occupational injuries and occupational morbidity in domestic health care facilities.



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List of selective tasks

1. Create situational test tasks
2. Creating multimedia presentations on the topics of practical classes
4. Creating biological crosswords on the topics of practical classes
5. Participation in student scientific and practical conferences
6. Organization and visiting of thematic museums
7. Publication of abstracts of scientific conference reports in co-authorship with a teacher

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Discipline features

Period of teaching	Semester	International disciplinary integration	Year of study	Courses: general training/ professional training/elective
1 semester	3rd semester	available	2	General training

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Assessment system and requirements. General system of discipline assessment

The current performance of students is assessed on a 4-point scale (2; 3; 4; 5) at each practical, taking into account the approved evaluation criteria for the relevant discipline. The student must receive a grade for each topic for further conversion of grades into points on a multi-point (200-point) scale.

Criteria for assessing current academic performance:

Excellent ("5") - the student answered 90-100% of the questions correctly. Solves situational problems of increased complexity, is able to summarize the material.

Good ("4") - the student answered 70-89% of the questions correctly. The student has the necessary practical skills and techniques to perform them to an extent that exceeds the required minimum.

Satisfactory ("3") - the student answered 50-69% of the questions correctly. Has only the required minimum of research methods.

Unsatisfactory ("2") - the student answered 50% of the questions correctly. When answering and demonstrating practical skills, he/she makes significant, gross mistakes.

Evaluation of students' independent work in preparation for classroom practical classes is carried out during the current control of the topic at the relevant classroom.

The semester credit is evaluated on a two-point scale (passed/not passed) and a 200-point scale by determining the arithmetic mean of current grades for each practical lesson on a 4-point scale and its subsequent conversion to 200-point scale. The minimum number of points that a student must score is 120.

The final control of knowledge in the discipline "Bioethics and medical communications" is carried out in the form of a differentiated test. The differentiated test in the discipline is conducted in the form of an oral survey according to the questions compiled in accordance with the material covered.

<https://ieu.edu.ua/docs/rate-of-study.pdf>



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11 Assessment system and requirements. General system of discipline assessment

A condition for student admission to the final control is the absence of missed or completed practical classes, as well as an average current grade of at least 3 points on a 4-point scale \ 120 points on a 200-point scale.

<https://ie.u.edu.ua/docs/rate-of-study.pdf>

12 Admission to final control

The study of the discipline "Labor Protection in the Industry" requires compliance with the rules that ensure effective mastery of the subject, both in theory and in practice, namely

- regular, without absences, attendance at lectures and practical classes
- the presence of the teacher and students in the classroom in accordance with the schedule and the established time regulations of classes
- the presence of the teacher and students in the classroom neatly dressed in appropriate clothing, namely in a white coat
- full presentation of the course by the teacher in accordance with the program of the discipline
- students keep lecture notes and notes on practical classes
- the study of the discipline is based on collegiality, cooperation and solidarity of the teacher and students
- discussion of educational issues takes place in the form of a discussion between the teacher and students, and students among themselves
- lectures and practical classes, with the exception of the final control of knowledge, involve independent work of students with the use of information technology and means of processing, storing and transmitting information, including computers, personal gadgets and other electronic devices, as well as textbooks, manuals, methodological developments, etc.
- scientific search and research work of students is welcome
- Writing essays on the topics specified in the list of compulsory assignments is a part of the training
- writing essays on the list of topics of optional assignments is desirable and mandatory if a student wants to improve his or her grade
- the topics of the discipline are considered in terms of their practical application and bioethical capacity
- the mutual behavior of the teacher and students, and students among themselves in the classroom and out of class time complies with generally accepted norms and role models of behavior that provide for mutual respect and collegiality of relationships, and exclude religious, racial, ethnic, cultural, age, gender, social, political, and other prejudices and prejudices, as well as bullying, sexual harassment, and other manifestations and forms of intolerance and humiliation of human dignity
- any manifestations of corruption in the educational process, both on the part of the teacher and the students, are unacceptable.

13 Discipline policy

A student who, for valid reasons, confirmed by documentary evidence, was not subject to current control has the right to undergo current control within two weeks after returning to study.

A student who was absent from classes without valid reasons, did not participate in current control activities, did not eliminate academic debt, is not allowed to take the final semester control of knowledge in this discipline, and on the day of the exam, the academic staff member gives a grade of "not admitted" in the examination record.

Retaking the differentiated test in the discipline is assigned subject to the completion of all types of educational, independent (individual) work provided for by the working curriculum of the discipline and is carried out in accordance with the schedule of liquidation of academic debt approved by the directorate.

<https://ie.u.edu.ua/docs/050.pdf>



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14 Policy of absence and late task performance

Participants in the educational process are guided by the principles of academic integrity
<https://ieu.edu.ua/docs/011.pdf>

15 Recommended sources of information

Primary literature:

1. Occupational safety in the medical field: a study guide / O.P. Yavorovsky, M.I. Veremey, V.I. Zenkina et al. 208 c.
2. Safety of life, basics of labor protection: textbook / O.P. Yavorovsky, V.M. Shevtsova, V.I. Zenkina and others; edited by O.P. Yavorovsky - Kyiv: Vsevolod "Medicine", 2015. 288 p.
3. Labor protection in health care facilities. Safety of life: textbook / B.C. Tarasiuk, G.B. Kuchanska - K.: VSV "Medicine", 2015. 520 p.
4. Occupational health and safety of health care workers: textbook for students of higher medical (pharmaceutical) educational institutions of I-III accreditation levels / N.M. Kasevych, K.I. Shapoval - 3rd ed.
5. Berezutskyi V.V. Hazardous industrial risks and reliability: a textbook / V.V. Berezutskyi, M.I. Adamenko; Kharkiv Polytechnic Institute, National Technical University - Kharkiv: Panov A.M., 2016. 385 p.

Supporting literature:

1. Hygiene and labor protection of health care workers. Textbook / Edited by V.F. Moskalenko, O.P. Yavorovsky - K.: "Medicine", 2009. - P.6-56.
2. Hygiene and labor protection of medical workers. Study
3. manual / Edited by V.F. Moskalenko, O.P. Yavorovsky - K.: "Medicine", 2009.
4. 176 c.
5. Aladysheva L. On psychological expertise as a tool for reducing occupational injuries // Occupational Health and Safety. - 2015.- № 7. - C. 44-46.
6. Andriushchenko K. Compulsory state social insurance against accidents at work in the context of European integration // Public Law. - 2015. - № 4. - C. 229-235.
7. Occupational health and safety. Terms and definitions of basic concepts: DSTU 2293: 2014 / National Standard of Ukraine. - Entered into force 2015-05-01 // To help the specialist in labor protection. - 2015. - № 10. - C. 41-49.
8. Constitution of Ukraine. The Basic Law of 28.06.1996.
9. The Labor Code of Ukraine. Law No. 322-VIII of 10.12.71.
10. Law of Ukraine "On Labor Protection" of 14.10.92.
11. Law of Ukraine "On Ensuring Sanitary and Epidemic Welfare of the Population" No. 4004-XII of February 24, 1994.
12. Law of Ukraine "On Collective Bargaining and Agreements" No. 1874 of December 24, 1995.
13. Law of Ukraine "On Insurance Tariffs for Compulsory State Social Insurance against Industrial Accidents and Occupational Diseases that Caused Disability" No. 1423 of September 13, 2000.
14. Law of Ukraine "On Administrative Violations" No. 8074-10 of December 07, 1984.
15. Fundamentals of the Legislation of Ukraine on Health Care No. 2802-XII of 19.11.92.

3. Information resources:

1. Official website of the President of Ukraine <http://www.president.gov.ua/>.
2. Verkhovna Rada of Ukraine <http://www.rada.gov.ua/>.
3. Cabinet of Ministers of Ukraine <http://www.kmu.gov.ua/>.
4. Ministry of Health of Ukraine <http://moz.gov.ua/ua/portal/>.
5. Ministry of Education and Science of Ukraine <http://www.mon.gov.ua/>.
6. Ministry of Ecology and Natural Resources of Ukraine <http://www.menr.gov.ua/>.
7. State Emergency Service of Ukraine <http://www.dsns.gov.ua/>.



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15 Recommended sources of information

8. State Labor Service of Ukraine <http://dsp.gov.ua/>.
9. World Health Organization <http://www.who.int/en/>.
10. International Labor Organization <http://www.ilo.org/global/lang--en/index.htm>.
11. Dokterhoe website and app for health workers (Dutch language). <https://www.dokterhoe.nl/>. Accessed 10 Oct 2016.

16 Tips on successful study during the course

Attendance at classes
Dialogue with the teacher on all issues of the curriculum
Completion of assignments in accordance with the program
Writing essays on the topics of the program
Discussion of topics and assignments in groups outside of class time
Use of Internet resources