



Syllabus of the educational component

Program of educational discipline

Organizational and technical provision of audit with occupational safety of jobs in the industry

Code and name of specialty
263 – Civil security

Institute
Educational and Scientific Institute of Mechanical Engineering and Transport

Educational program
Labor protection

Department
Occupational and environmental safety (144)

Level of education
Master's degree

Type of discipline
Special (professional), Mandatory

Semester
2

Language of teaching
English

Teachers, developers



Yevtushenko Nataliia Serhiivna

nataliia.yevtushenko@khpi.edu.ua

Candidate of Technical Sciences, Associate Professor, Associate Professor of the Department of Occupational Safety and the Environment of NTU "KhPI"

The author of more than 200 scientific and educational and methodical publications. Leading lecturer on the courses: "Fundamentals of engineering training", "Organizational and technical support for the audit of workplaces in the field of labor protection", "Basics of professional activity and human health", "Occupational safety in professional activity", "Basics of ecology". <https://www.kpi.kharkov.ua/ukr/>

More information about the teacher on the website of the department

General information

Abstract

The formation of special knowledge in the future specialists regarding the organization and implementation audit to ensure safety at workplaces and implementation of these knowledge into the system of safe production activities.

Purpose and objectives of the disciplines

- acquisition of knowledge and skills that will provide students, as future labor protection specialists, with the ability to perform both direct inspection functions and ensure communication and effective interaction with state institutions, supervisory bodies and public organizations as employees (engineers) of the enterprise's labor protection service;
- formation of a system of theoretical and applied knowledge of students on socio-economic issues of improving working conditions, increasing its safety, reducing industrial injuries and morbidity;
- formation of skills to make the right decisions in the complex and changing conditions of a modern enterprise based on the economic assessment of measures and means of protection work, as well as an active position regarding the practical implementation of the principle of prioritizing the protection of life and health of employees in relation to the results of production activities.

Format of classes

Lectures, practical classes, independent work (calculation task). The final control is an exam.

Competences

- SK-2. Ability to operate with terms and definitions of concepts in the field of civil protection, labor protection; basic provisions, requirements and rules regarding monitoring, organization and implementation of measures regarding prevention, liquidation of emergency situations.
- SK-8. Ability to analyze and assess the potential danger of objects, technological processes and production equipment for people and the environment.

Learning outcomes

- OL-3. Analyze social phenomena and processes at the level necessary for professional activity, know the regulatory and legal principles of civil protection, labor protection, issues of regulatory regulation of measures in the field of civil protection and man-made security of objects and territories
- OL -7. Choose optimal measures and means aimed at reducing occupational risk, protecting the population, preventing emergency situations.
- OL -11. Determine physical, chemical, biological and psychophysiological harmful production factors and analyze the safety of production equipment.
- OL -12. Determine the technical condition of external and internal engineering networks and structures to assess their compliance with the requirements of civil protection and man-made safety

Scope of the discipline

The total scope of the discipline is 180 hours. (6 ECTS credits): lectures – 32 hours, practical classes – 32 hours, independent work – 116 hours.

Features of the discipline, methods and technologies of education

Lectures are conducted interactively using multimedia technologies. In the laboratory classes use a project approach to learning, methods and forms of activation cognitive activity of students, attention is focused on the application of information technologies in labor safety studies. Study materials are available to students through OneNote Class Notebook.



Program of educational discipline

Lecture topics

Topic 1. Systemic approach and analysis in the organization of labor protection in production. The main provisions of the organization of labor protection in production.

The object, subject and tasks of the discipline. Work as a sphere of life activity and a leading factor of production. Social and labor relations as a system. Normative and legal basis for the organization of the labor protection management system at the enterprise

Topic 2. Basics of safety of "man - machine - production environment" functioning.

Topic 2. International norms in the field of labor protection. International labor organization and its influence on the development of social and labor relations.

International Labor Organization. The main conventions of the ILO in the field of labor protection. European Union legislation on labor protection. Development and improvement of labor protection management systems in Ukraine, taking into account the requirements of the ILO. International cooperation in the field of labor protection.

Topic 3. Social foundations of labor protection

Protection of the employee and his right to safe work is a key function of labor protection. Social categories of modern society, their connection with work and work safety. Efficiency of social production. The role of labor protection in the growth of labor productivity and preservation of labor resources.

Topic 4. Organizational and technical provision of workplaces according to working conditions.

Concept and assessment of organizational and technical support of workplaces. Concept of workplace. Factors determining working conditions at the workplace. Organizational and production structure of the enterprise (institutions, organizations). Duties and actions of the head of the enterprise for the organization and conduct of attestation and sanitary and hygienic certification of workplaces. Working conditions at enterprises of the industry. Classification of working conditions. Categories of works by degree of gravity and difficulty. Parameters of the production environment and labor process as factors determining working conditions at the workplace. Concept of technical and organizational levels of jobs.

Topic 5. Economic foundations of labor protection.

Economic importance and economic problems of labor protection. Economic methods of labor protection management. The role of compensation for working in adverse working conditions in the management of labor protection. Financing of labor protection activities. Social insurance fund. Estimate of labor protection costs. Expenses of enterprises to fulfill the requirements of legislation and regulatory legal acts on conditions and labor protection.

Topic 6. Audit on industrial safety and labor protection

The essence, subject, tasks and methods of occupational safety audit. Audit forms for industrial safety and occupational health and safety. Audit objects. Legal regulation of industrial safety and occupational health audit. Audit effectiveness in the field of labor.

Topic 7. Activities related to the formation of state policy and the determination of mechanisms for its implementation in the field of industrial safety and occupational health and safety.

Areas of activity of state supervision of labor protection. Planning the work of state supervision of labor protection.

Topic 8. Evaluation of the effectiveness of management activities of civil security processes.

Performance evaluation criteria. Indicators of the effectiveness of the management of security processes of the enterprise. Occupational health and safety measures as the most important component of the enterprise's economic and social development plan. Increase in labor productivity due to improvement of working conditions. Indicators of assessment of social efficiency and the degree of risk from the implementation of economic activity. Stimulating labor protection and encouraging employees to create safe and healthy working conditions.

Themes of laboratory work

Topic 1. Legislative acts of Ukraine in the field of labor protection and their requirements regarding state guarantees of workers for safe working conditions.

Topic 2. The essence of social and labor relations. General characteristics of their system

Topic 3. The structure of the international labor organization. Requirements and recommendations of international standards ISO series 9000, 14000, ONSAS 18000.



- Topic 4. Calculation of the social effectiveness of labor protection measures at the enterprise.
- Topic 5. Organization of labor processes and workplaces.
- Topic 6. Calculation and evaluation of working conditions according to indicators of harmfulness and dangerous factors of the production environment, difficulty and tension of the labor process.
- Topic 7. Financing and taking into account the costs of labor protection measures.
- Topic 8. The procedure for conducting an audit on industrial safety and occupational health and safety.
- Topic 9. Determination of the procedure and control over the organization of training and knowledge testing of officials on industrial safety and occupational health and safety issues.
- Topic 10. Determination of the effectiveness of measures and means of prevention of industrial injuries and occupational morbidity.

Independent work

Additional materials (textbooks) are recommended to students for independent study and analysis of issues submitted for independent study. The results are drawn up in a written report, presentations.

Literature and study materials

Basic literature

1. **Distance course** "Organizational and technical audit support for occupational safety of workplaces in the field of labor protection" / Approved by the Methodical Council of the University, protocol No. 1 dated January 28, 2022, access mode <http://dl.khpi.edu.ua/course/view.php?id=604>
2. Pashchenko I. N. Labor economics and social-labor relations: academic. study guide higher education closing / I. N. Pashchenko. – Lviv, 2019.
http://dipplus.com.ua/metodicheskiye-ukazaniya-i-informatsiya/article_post/yekonomika-pratsi-ta-sotsialno-trudovi-vidnosini
3. Chervinska L. P. Labor economics: study guide for students. higher education closing : rec monu / l. p. Chervinska. - Kyiv: Center for Educational Literature, 2019. - 287 p. <https://Uchebnik-Online.Net/Book/789-Ekonomika-Praci-Navchalnij-Posibnik-Chervinska-L-P/2-Anotaciya.Html>
- 4 Legal foundations of labor protection policy and labor protection: teaching. manual / V.D. Gubenko, B.M. Korzyk, V.P. Andriichenko, N.A. Gubenko; under the editorship B.M. Korzhika; Hark. National Academic University of Economics and Business-Kh.: KhNAMG, 2020 – 174 p.
<https://eprints.kname.edu.ua/25311/1/>
5. Organizational and technical support of attestation and certification of workplaces: a course of lectures. / Compilers: V.M. Loboychenko, S.V. Belan. NUTZU, 2019. – 226 p.
http://univer.nuczu.edu.ua/tmp_metod/2558/Kurs_lekcij_ch.1.pdf

Additional literature

1. Hogitashvili H.G., Karchevski E.T., Lapin V.M. Labor protection and risk management according to international standards: Education. manual - K.: Znannia, 2019. - 367 p.
<https://dut.edu.ua/ua/lib/4/category/760/view/785>
2. Yaroshevska V.M., Chaban V.Y. Occupational Health in. - Tutorial. - K.: Professional, 2019. - 288 p./www.pdau.edu.ua/sites/default/file
3. Rusalovsky A.V. Legal and organizational issues of labor protection: Study guide. – 3rd edition, supplement. and processing. - K.: "Ukraine" University, 2020. -272p.
<http://ualibrarium.narod.ru/tehno/ohorona-praci/11/pravovi-organizaciyni-pitannya-ohoroni-praci-rusalovsykiy.html>
4. Organizational and technical support of attestation and certification of workplaces: a course of lectures. / Compilers: V.M. Loboychenko, S.V. Belan. NUTZU, 2019. – 226 p.
http://univer.nuczu.edu.ua/tmp_metod/2558/Kurs_lekcij_ch.1.pdf
5. International standard OHSAS 18001:2007 Occupational health and safety management systems – Requirements. Occupational health and safety management systems - Requirements.
<http://www.brn.sm.gov.ua/index.php/uk/8-novini>. International standard OHSAS 18002, Guidelines for the implementation of OHSAS 18001. Guidelines for the implementation of OHSAS 18001.
http://online.budstandart.com.ua/catalog/doc-page?id_doc=64325



6. Occupational health and safety audit at the enterprise // Okhorona prazit. – 2020. – No. 10. . "State concept of professional orientation of the population". - No. 842. - 2020.
<http://web.kpi.kharkov.ua/mit/wp-content/uploads/sites/>

Assessment system

Criteria for assessing the student's success and distribution of points

100% of the final grade consists of assessment results in the form of credit (30%) and current assessment (70%).
Assessment: written assignment (2 questions from theories + problem solving) and an oral report.
Current rating:
2 online tests (15% each), laboratory work (40%).

Assessment scale

The sum of the points	National assessment	ECTS
90–100	Excellent	A
82–89	Good	B
75–81	Good	C
64–74	Satisfied	D
60–63	Satisfied	E
35–59	Unsatisfactorily (further study required)	FX
1–34	Unsatisfactorily (needs repeated study)	F

Norms of academic ethics and policy of the course

The student must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": show discipline, education, benevolence, honesty, responsibility. Conflict situations should be openly discussed in study groups with the teacher, and if it is impossible to resolve the conflict, it should be brought to the attention of the employees of the institute's directorate.

Regulatory and legal support for the implementation of the principles of academic integrity of NTU "KhPI" is posted on the website: <http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/>

Approval

The syllabus has been agreed

Date of approval, signature

Head of Department
Sergij VAMBOL

20.09.2023



Date of approval, signature

Guarantor of the educational
program
Vyacheslav BEREZUTSKY

20.09.2023

