

Ministry of Education and Science of Ukraine



ODESA STATE ACADEMY OF CIVIL ENGINEERING AND ARCHITECTURE

Civil Engineering Institute
Department of Organization of Building and Labor Protection

SILABUS **educational component – EC 2** Labor Protection and Civil Protection

Educational level	Master's
Field of knowledge	19 Architecture and Construction
Specialty	192 Building and Civil Engineering
Educational program	Industrial and Civil Engineering
Educational component scope	3 credits ECTS (90 academic hours)
Types of classroom training	Lectures, practical classes
Individual tasks	2 Calculated and graphical works
Forms of final (term) control	credit

Lecturer(s):

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When studying the educational component, higher education students will develop the following skills and competences about the basic laws of the development of industrial hazards in the construction industry, the possibilities of their prevention in project practice and the fundamentals of the organization of civil protection at the business subject, individual and collective means of protection and acquiring skills in assessing the sustainable functioning of business entities.

Requirements for studying the educational component: Life safety and labor protection; Technology of Construction Production, Engineering Equipment of Buildings, Building Structures.

Program learning outcomes:

- PLO 3.** Ability to use normative and legal acts in everyday and professional life activities; to navigate in scientific, special literature and laws.
- PLO 4.** The ability to practically carry out measures to protect personnel and the population from the consequences accidents, disasters, natural disasters and the use of weapons; evaluate the stability of elements of objects economic activity in emergency situations and determine the necessary measures regarding it increase; evaluate the radiation, chemical, bacteriological environment and the environment that can occur as a result of a natural disaster and an accident.
- PLO 6.** Ability to apply systems of organization and execution of preparatory work on workplace; compile a list of measures related to the normative state of the security system and a possible deviation in the extraordinary direction of the production situation; have skills optimal management of several workplaces in matters of industrial safety activity.
- PLO 7.** The ability to assess the danger of aggressive influences on building structures and buildings - atmospheric, chemically and biologically active environments, leakage and stray currents, etc., develop and implement measures to protect against them and ensure the necessary durability of structures and buildings.
- PLO 8.** Use the technical Ukrainian language orally and in writing.
- PLO 17.** The ability to find optimal solutions when creating certain types of construction products taking into

account architectural and planning requirements, strength, durability, safety life activity, quality, cost, terms of execution and competitiveness.

Differentiated program learning outcomes:

to know:

- legislation on labor protection in the field of construction;
- the rights, duties and responsibilities of the employee and the head of the enterprise or institution non-production sphere;
- state normative acts on labor protection (NPAOP), industry-specific, industry-specific and interstate, interbranch normative acts (ISO, EC/ET/21);
- organization of civil defense at the business entity;
- emergency prevention measures;
- organization of works to eliminate the consequences of emergency situations

to possess:

- skills in the development and implementation of safe technologies;
- methods of choosing optimal conditions and mode of work;
- workplace design methods based on modern technological and scientific methods achievements in the field of labor protection;
- systems for developing methodical support and conducting training and testing knowledge on issues of labor protection;
- skills in providing assistance and consulting to employees on practical safety issues labor;
- method of forecasting possible radiation, chemical, biological (bacteriological) situations that may arise as a result of emergency situations;
- a method of assessing the stability of the work of economic entities to the actions of various impressive factors.

to be able to:

- use the guarantees of citizens' rights to labor protection: establishing working hours and rest time, benefits and compensation for difficult and harmful working conditions;
- establish control and supervision of the state of labor protection;
- organize training on labor protection issues;
- organize certification of workplaces according to working conditions;
- identify emergency situations, investigate the conditions of their occurrence and development and ensure coordinated actions to prevent them at the economic entity in accordance with their professional duties;
- practically carry out measures to protect personnel and the population within the limits of their powers from the consequences of accidents, disasters, natural disasters and the use of weapons.

Thematic plan

Topic 1 Basic legislative and regulatory acts on labor protection in the industry.

Topic 2 Occupational safety management system in the organization.

Topic 3 Hygienic assessment of working conditions.

Topic 4 Assessment of technical and organizational levels of the workplace.

Topic 5 Unified state system of civil protection and powers of security entities civil protection.

Topic 6 Protection of the population and territories from emergency situations.

Topic 7 Prevention of emergency situations, response to emergency situations and elimination of their consequences.

Topic 8 Organization of civil defense at the economic entity

Score criteria and diagnostic tools

The minimum and maximum score for the «credit» in the educational component «Labor Protection and Civil Protection» ranges from 60 points to 100 points.

The educational component includes the following task – 2 calculated and graphical work.

From the sections "Designing a system for ensuring safe working conditions" (CGW-1) and "Volume-planning and constructive solutions of civil defense storage facilities. Their engineering and technical equipment" (CGW-2).

The works contain two parts: calculation and graphic and are performed in the form of an explanatory note of 10-15 pages (format A-4) and a graphic part (1 sheet format A-2). Methodical recommendations for performing calculation and graphic work [10].

Term control is carried out in the form of credit. The credit score is set on the basis of the results of the current tasks control during the semester.

Information support
Main sources of information

1. Code of Civil Protection of Ukraine: dated 2.10.12 No. 5403-6 VVR No. 34, 35 of 1992. officer text with changes. as of 04/19/2024 No. 3441-IX
2. Code of Labor Laws of Ukraine: dated 10.12.71. No. 322-08 VVR No. 50 of 1971. Officer. text from changes as of 05/18/2024 No. 3633-IX
3. Law of Ukraine on objects of increased danger: dated January 18, 2001 No. 2245-III VVR No. 2. 2001 officer text with changes. as of 01.01.2024 No. 1909-IX
4. DBN V.2.2-5:2023 Protective structures of civil protection
5. DSTU 2293:2014 Labor protection. Terms and definitions.
6. Law of Ukraine on labor protection: dated 14.10.92 No. 2694-12 of the Labor Law No. 49 of 1992. officer text from changes as of 01.10.2023 No. 2573-IX
7. Fire safety of multi-apartment buildings: training manual/S.V. Dzyuba, P.M. Chabanenko, A.V. Bespalova, O.I. Knysh, M.M. A creak Odesa: ODABA, 2020. 71 p. ISBN 978-617-7900-27-5
8. Bespalova A.V., Knysh O.I., Romaniuk V.P. Synopsis of lectures on the discipline "Occupational safety and civil protection" for students of all specialties at the "master's" educational level: ODABA, 2024. 71 p.
9. Bespalova A.V., Knysh O.I., Romaniuk V.P., Dashkovska O.P. Methodical instructions to practical classes in the discipline "Occupational safety and civil protection" for all students of specialties at the "master's" level of education: ODABA, 2024. 88 p.
10. Bespalova A.V., Knysh O.I., Dashkovska O.P. Methodical instructions for the implementation of two calculated and graphical works from the discipline "Occupational protection and civil protection" of the educational and professional (scientific) program "Industrial and civil construction" in specialty 192 Construction and civil engineering. Educational level - second master's degree: ODABA, 2024. 55 p.

Additional sources of information

11. Atamanchuk P.S., Menderetskyi V.V., Panchuk O.P., Chorna O.G. Integrated course life safety (theoretical foundations): Education. manual - Kamianets-Podilskyi: Buynytskyi O.A., 2009. 200 p.
12. Atamanchuk P.S., Menderetskyi V.V., Panchuk O.P., Chorna O.G. Life safety and labor protection (Practical course): Study guide. - Kamianets-Podilskyi: "Opinion", 2010. 152 p.
13. Chekulaev D.I., Prystuplyuk V.P., Smetanin G.I., Romaniuk V.P. Methodical instructions from disciplines "Civil Defense" in relation to the RGR on the topic "Civil Defense Protective Structures" for students of all areas: specialist, master's degree: ODABA, 2013. 22 p.