Ministry of Education and Science of Ukraine

ODESA STATE ACADEMY OF CIVIL ENGINEERING AND ARCHITECTURE

Civil Engineering Institute

SILABUS
educational component – EC 13
Professional practice

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	6 **credits ECTS** (180 academic hours)
Types of classroom training	
Individual tasks	report
Forms of final (term) control	credit

When studying the educational component, higher education students will develop the following skills and competences independently organize the technical process, draw up and draw up production documentation, measure the completed works, determine their compliance with the project and quality.

Requirements for studying the educational component: general and professional disciplines of the second educational and professional level.

Program learning outcomes:

PLO 1. The ability to assess the overall efficiency of the construction enterprise.

PLO 2. The ability to use the provisions of regulatory legal acts in the professional field activities; draw up basic business contracts; navigate the licensing process of certain types of activities.

PLO 3. The ability to use regulatory and legal acts in everyday and professional life activities; to navigate in scientific, special literature and laws.

PLO 5. Ability to apply numerical methods; calculate and analyze (evaluate) mathematical models.

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 in optimal management of several workplaces in matters of industrial safety activity

PLO 8. Use the technical Ukrainian language orally and in writing.

PLO 9. Ability to design structures from modern materials; evaluate work and the stress state of buildings and structures in general, their structural elements, redistribution of efforts in connection with a change in the design scheme; solve the issue of assessment of bearing capacity of constructions

PLO 12. The ability to carry out inspections of the technical condition of buildings, structures and engineering communications, and give an assessment of this state; evaluate their further operational suitability or the need to develop a project to restore this suitability; calculate the level the necessary increase in the bearing capacity of the structure to ensure operational suitability of the building.

PLO 13. Ability to design buildings and structures, including using software computer design systems based on an effective combination of innovative technologies and performing multivariate calculations of metal structures.

PLO 14. Design structures of buildings and structures in order to ensure their strength, stability, durability

and safety, ensuring reliability.

PLO 15. Perform technical and economic justifications of constructive, technological, organizational solutions for the construction or reconstruction of buildings and structures, to develop technical documentation for projects and their elements.

PLO 16. Ability to consider social, environmental, ethical, economic and commercial considerations affecting the implementation of construction solutions.

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.

PLO 18. The ability to justify and make optimal decisions on the arrangement of the basics and foundations in special conditions.

PLO 19. The ability to apply knowledge in design and research work on the use modern information technologies in solving seismic resistance problems.

PLO 20. The ability to study the construction object in accordance with the chosen subject of the master's degree works; collect and analyze the necessary material (source information) for implementation master's thesis; apply the knowledge and skills acquired throughout the course of study.

Differentiated program learning outcomes:

to know:

- composition of design and estimate documentation;
- the order of manufacture and the phasing of the design.

to possess:

- free reading of drawings;
- analysis of the sequence, forms of organization and problems of functioning of the structural one the division of the organization where the workplace is located, at which
- practice takes place (if possible, this work is extended to the framework of the entire organization);
- analysis of professional techniques, methods and tools;

technological description of the activities of the organization in which the student is doing internship

to be able to:

- independently organize the technical process and placement of workers in operations;
- draw up and draw up production documentation (orders, production calculations, acts of acceptance of completed work, for hidden work, for write-off of materials, etc.)
- measure the completed works, determine their compliance with the project and quality;
- use technical documentation (working drawings, estimates, etc.).

Thematic plan

Topic 1 Speech of the head of practice from the department with the issuance of individual tasks and conducting briefings

Topic 2 Arrival at the enterprise and passing the introductory safety briefing about work at the enterprise

Topic 3 Familiarization with the organization of the work of the enterprise and structural unit

Topic 4 Familiarization with job and functional responsibilities

Topic 5 Performance of production tasks

Score criteria and diagnostic tools

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

The educational component includes the following task – report.

The report is made on the basis of performance of the student of certain types of work in practical classes and performance of individual tasks. It consists of a title page, table of contents, introduction, main parts, conclusions and literature.

Term control is carried out in the form of credit. The assessment of obtaining "credit" for the educational component "Professional practice" takes place in accordance with the completed report and its defense.

Information support

Main sources of information

1. DBN V.2.2-15:2019 Residential buildings. Main provisions□K.: Ministry of Regional Development and Construction of Ukraine, 2019. 39p. – Valid from 01.12.2019.
2. DBN A.3.1-5-2016 Organization of construction production. - K.: Ministry of regional development and construction of Ukraine, 2016. 51p. – Effective from 01.09.2016.
3. Technology of construction production / Study guide. V.O. Galushko, O.I. Meneilyuk et al. – Odesa, ODABA, 2020. 423 p.
4. DBN B.2.6-198:2014 with amendment No. 1. Steel structures. Design standards. - K.: Ministry of Regional Construction of Ukraine, 2022. 224p.
5. DBN V.2.6-161:2017 "Wooden structures. Main provisions" - To: Ministry of the Region of Ukraine, 2018. 111 p.
6. DBN B.1.2-2:2006 with amendments No.1 and No. 2. Loads and influences. Design standards. - K.: Ministry of Construction of Ukraine, 2020. 72 p.
7. DSTU B V.1.2-3:2006 Deflections and displacements. Design requirements. - K.: Ministry of Construction of Ukraine, 2006. 15 p.
8. DSTU B V.2.6-210:2016 Assessment of the technical condition of steel building structures that are exploited Ministry of Construction of Ukraine, K.: 2016. 54 p.
9. DBN A.3.1-5-2016 Organization of construction production. - K.: Ministry of regional development and construction of Ukraine, 2016. 61p. – Effective from 01.01.2016.
10. DBN A.3.2-2-2009 Labor protection and industrial safety in construction. - K.: Ministry of regional development and construction of Ukraine, 2012. 96 p. – Effective from 04/01/2012.
11. DSTU-N B A.2.2-11:2014 Resolution on author supervision of construction. - K.: Ministry of Regional Development and Construction of Ukraine, 2014. 10 p. – Effective from 01.07.2015
12. DBN A.2.2-3:2014 Composition and content of project documentation for construction. □ K.: Ministry of Regional Development and Construction of Ukraine, 2014. 34 p. – Effective from 01.10.2014.