



“SUSTAINABLE CONSTRUCTION AND ENVIRONMENTAL PROTECTION”

1.	The title of the lesson	<b>Sustainable construction and environmental protection</b>
2.	Annotation (what will be the topic discussed)	Sustainable construction is consistently focused on protecting the environment, improving human health, and embracing low energy consumption. It is one of the sectors of the European Union that the European Commission has included as priorities, which have great potential and are extremely important for the European economy as a whole. Harmony, ethics, greenness... The words associated with the concept of sustainability often summarize various trends and processes. But what does sustainability and ethical creative processes mean in the construction sector? Sustainability creates economic value that benefits the world today and tomorrow. Sustainable construction draws moral, ethical and performance boundaries in the architecture and construction sectors and envisages that work is carried out in economically sound processes that reduce negative impacts on the environment, conserve energy and natural resources. Ethical construction also aims to increase worker, community and product safety.
3.	The lesson structure (plan of the lesson)	<ol style="list-style-type: none"><li>1. Sustainability of construction (<i>the issue of sustainability: global environmental situation in the world; the concept of sustainable construction, concepts, terms; energy consumption of buildings, energy efficiency; energy efficiency during construction works; construction waste management, sorting; use of other resources during construction; use of environmentally friendly construction products and auxiliary materials; durability of barrels; social activism and "green" culture</i>).</li><li>2. Conservation of the environment (<i>sustainable development, sustainable environment; circular economy; raw material; projecting; production; distribution; secondary use; selection; recycling; circular economy perspectives</i>).</li></ol>
4.	The goals of the lesson	The purpose of the lesson is to develop and consolidate an environmentally friendly (green) work culture in the construction sector, while increasing the supply of the lacking qualified workforce to the construction sector and creating an opportunity to improve the qualifications of specialists already working in the construction sector with "green" skills.
5.	The theoretical part of the lesson	During the lesson, the trainer has the following tasks: <ul style="list-style-type: none"><li>- to explain the impact of changes in the global situation on the environment;</li><li>- introduce basic concepts and terms;</li><li>- explain the main causes of energy loss;</li><li>- teach how to choose the optimal ways of performing work;</li><li>- teach how to avoid basic technological mistakes;</li><li>- explain how to avoid waste and manage it;</li><li>- explain how to use natural resources more economically;</li><li>- introduce the possibilities of using organic materials;</li></ul>

		<ul style="list-style-type: none"> <li>- explain the importance of work quality, technical maintenance;</li> <li>- explain the goals of sustainable development;</li> <li>- introduce the circular economy, its stages and perspectives;</li> <li>- teach how to optimize production processes;</li> <li>- to explain the advantages of energy and renewable sources in production;</li> <li>- to familiarize with the complex activities of waste management.</li> </ul>
6.	The practical part of the lesson (tasks, exercises, tests, workshops)	<p>Short discussion and speeches on any of the following topics:</p> <ul style="list-style-type: none"> <li>• <i>Why are 1 million species of life in danger?</i></li> <li>• <i>What is sustainable construction?</i></li> <li>• <i>How can new technologies help extend the longevity of buildings?</i></li> <li>• <i>Is social activism a relevant topic in environmental protection?</i></li> <li>• <i>What environmental topics are the most relevant for the constructions taking place in the country?</i></li> <li>• <i>What is your opinion about public environmental movements?</i></li> <li>• <i>How to personally contribute to environmental protection, at work and at home?</i></li> </ul>
7.	Sources of information (links of videos, researches, the project website ...)	<ol style="list-style-type: none"> <li>1. <a href="https://www.youtube.com/watch?v=cxc21jgJT0I">https://www.youtube.com/watch?v=cxc21jgJT0I</a></li> <li>2. Directive 2010/31/EU of the European Parliament on the energy efficiency of buildings. <a href="https://eur-lex.europa.eu/eli/dir/2010/31/oj">https://eur-lex.europa.eu/eli/dir/2010/31/oj</a></li> <li>3. <a href="https://www.isover.lt/sites/isover.lt/files/assets/documents/pu26411_isover_teigiamos_en_brosiura_0.pdf">https://www.isover.lt/sites/isover.lt/files/assets/documents/pu26411_isover_teigiamos_en_brosiura_0.pdf</a></li> <li>4. <a href="https://europa.eu/youreurope/business/product-requirements/labels-markings/ecolabel/index_it.htm">https://europa.eu/youreurope/business/product-requirements/labels-markings/ecolabel/index_it.htm</a></li> <li>5. <a href="https://www.kskompanija.lt/sandarumotestas/?gclid=Cj0KCQiA34OBBhCcARIsAG32uvNF5YzTY91A8ANjtS5VO">https://www.kskompanija.lt/sandarumotestas/?gclid=Cj0KCQiA34OBBhCcARIsAG32uvNF5YzTY91A8ANjtS5VO</a></li> <li>6. <a href="https://www.eea.europa.eu/lt/themes/waste/intro">https://www.eea.europa.eu/lt/themes/waste/intro</a></li> </ol>
8.	Methods, tools, approaches	Lecture, demonstration, questions-answers.
9.	Conclusions of the lesson (the main learning results from the lesson)	<p>During training, the person will understand the impact of changes in the global situation on the environment; will master basic concepts and terms; will understand the main causes of energy loss; will learn to choose optimal ways of performing work; will avoid basic technological errors; will understand how to avoid and manage waste; know how to use natural resources more economically; will understand the possibilities of using organic materials; will understand the importance of work quality and technical maintenance; will be able to explain the goals of sustainable development; will understand what the circular economy is, its stages and perspectives; will be able to explain the optimization of production processes; will understand the advantages of energy and renewable sources in production; will be able to explain the ways of travel of objects and food; will be able to list methods of secondary use; will be able to explain the complex activities of waste management.</p>