

## TRAINING COURSE SYLLABUS «TECHNICAL RATE SETTING IN AGRICULTURAL PRODUCTION»

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| <b>degree</b>                         | Master level   |
| <b>specialties, training programs</b> | 015 Vocational training (Agricultural production, processing of agricultural products and food technologies)<br><i>vocational training (Agricultural production, processing of agricultural products and food technologies)</i><br>133 Industrial engineering<br><i>Machines and mechanization of agricultural production</i><br>208 Agricultural engineering<br><i>Technologies and agricultural production mechanization</i><br>192 Construction and civil engineering<br><i>Technologies of building constructions, products and materials</i>  |
| <b>Training course's status</b>       | faculty, selective   |
| <b>Year, period</b>                   | 1 year, 2 period   |
| <b>Workload</b>                       | Total hours – 120 h.<br>Credits – 4.   |
| <b>Language</b>                       | Ukrainian, English   |
| <b>Faculty, chair</b>                 | Faculty of engineering and technology,<br>chair of Mechanical and Electrical Engineering   |
| <b>Author's contacts</b>              | Lecturer:<br>PETRASH Oleksandr, candidate of technical sciences, associate professor at the chair of Mechanical and Electrical Engineering<br>Contacts: room 326 (campus #3),<br>e-mail: <a href="mailto:oleksandr.petrash@pdau.edu.ua">oleksandr.petrash@pdau.edu.ua</a><br>tel. (099) 918-65-32,<br>lecturer's web page link:<br><a href="https://www.pdau.edu.ua/people/petrash-oleksandr-vasylovych">https://www.pdau.edu.ua/people/petrash-oleksandr-vasylovych</a>   |
| <b>Course study purpose</b>           | Study and systematize current regulatory documents used in the preparation of investor estimate documentation for construction, expansion, reconstruction, technical re-equipment of enterprises of the national economy of Ukraine; to be able to obtain the necessary information on issues of labor rationing, drawing up estimate documentation and reliable determination of the cost of projects.  |
| <b>Competencies</b>                   | <ol style="list-style-type: none"> <li>1. Ability to use information and communication technologies.</li> <li>2. The ability to learn and master modern knowledge.</li> <li>3. Ability to search, process and analyze information from various sources.</li> <li>4. Ability to identify, pose and solve problems.</li> <li>5. Ability to make informed decisions.</li> <li>6. The ability to apply quantitative mathematical, scientific and technical methods and computer software tools to solve engineering problems, in particular, in conditions of technical uncertainty.</li> <li>7. The ability to develop and implement plans and projects in the field of the national economy, to carry out relevant business activities.</li> </ol> |
| <b>Results</b>                        | <p>RN 1. To be able to compile, analyze and optimize cost documentation for investment projects.</p> <p>RN 2. The ability to conduct research on mechanized processes with</p>   |

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|  | the derivation of the rate of consumption of time and materials.  |
| <b>Teaching methods</b>                            | <ul style="list-style-type: none"> <li>– verbal methods: lecture; story-explanation</li> <li>– visual methods: demonstration, illustration;</li> <li>– practical methods: exercises;</li> <li>– partially searchable;</li> <li>– interactive methods: brainstorming, designing professional situations, discussions;</li> <li>– computer and multimedia methods: use of multimedia presentations.</li> </ul>  |
| <b>Program of educational discipline</b>           | <p>Topic 1. Technical standardization.</p> <p>Topic 2. Determining the scope of work and required resources.</p> <p>Topic 3. Cost estimation trade.</p> <p>Topic 4. Analysis and optimization of the investor cost estimation documentation.</p>  |
| <b>A strategy for evaluating learning outcomes</b> | <p>Forms of current knowledge control and criteria for evaluating educational achievements:</p> <ul style="list-style-type: none"> <li>- survey;</li> <li>- performance of tasks for independent work;</li> <li>- performing exercises in practical classes;</li> <li>- execution of tests.</li> </ul> <p>Semester control form: credit.</p>  |
| <b>Policy of educational discipline</b>            | <ol style="list-style-type: none"> <li>1. Academic integrity: a student of higher education must adhere to the Code of Academic Integrity and the Code of Ethics of a teacher and student of higher education of Poltava State Agrarian University.</li> <li>2. Deadlines and rescheduling: practical tasks, tasks of independent work, which are submitted with a violation of deadlines without good reasons, are evaluated for a lower grade (-30%). Rescheduling of the current and final control takes place in the presence of good reasons with the permission of the dean's office.</li> <li>3. The possibility of mastering this academic discipline under academic mobility programs. A specially created commission carries out the recognition and re-enrollment of the results of such training on the basis of the relevant documents submitted by the student of higher education using the European credit transfer system. The Regulation on Academic Mobility of Students of Higher Education at PSAU regulates the organizational processes of studying under academic mobility programs.</li> <li>4. Applicants of higher education are entitled to the recognition of learning results acquired in non-formal/informal education before mastering this educational component. Recognition of acquired learning results or refusal to recognize them. Acquiring relevant learning outcomes is possible after the successful completion of courses (with documentary evidence) on various educational platforms, in particular: Prometheus, Coursera, etc. The features of non-formal/informal education are regulated by the Regulations on the Procedure for Recognition of Learning Outcomes Acquired in Non-Formal and Informal Education by the PSAU students.</li> </ol> |
| <b>Recommended sources of information</b>          | <p style="text-align: center;"><b>Basic</b></p> <ol style="list-style-type: none"> <li>1. Kovaliova, O. M. <i>The role of labor regulation in the labor potential management system</i>. 2020.</li> <li>2. <i>Code of labor laws: Law of Ukraine as amended from 19.07.2022</i> № 2434-IX. <a href="https://zakon.rada.gov.ua">https://zakon.rada.gov.ua</a></li> <li>3. Mislick, G. K., &amp; Nussbaum, D. A. <i>Cost estimation: Methods and tools</i>. John Wiley &amp; Sons. 2015.</li> </ol>   |

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|                             | <p style="text-align: center;"><b>Supplementary</b></p> <p>1. Petrash, O.V., Zotcenko, M.L., Petrash, S.S. et al. Normative studies of drilling technology for the production of soil-cement piles. 2016. <i>Construction Scientific Bulletin</i>. Kharkiv. Vol. 2 (84). P. 211 – 223.</p> <p>2. <i>Service for working with regulatory documents of the construction industry</i>. <a href="http://online.budstandart.com/ua/">http://online.budstandart.com/ua/</a></p> |
| <b>Year of introduction</b> | <b>2023</b>   |