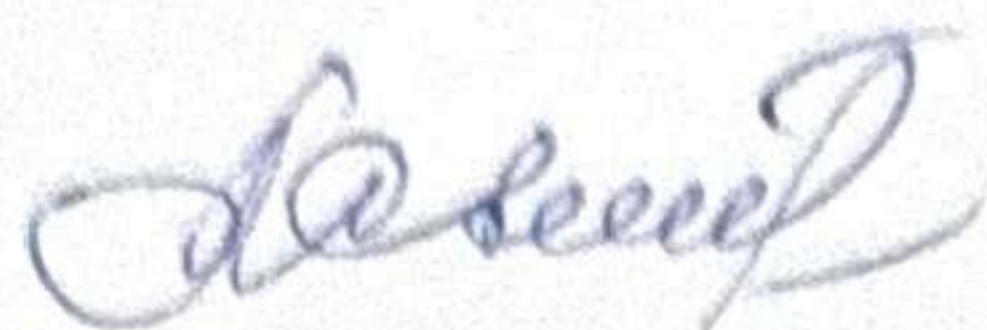


Ministry of education and science of Ukraine  
Sumy national agrarian university  
Faculty of economics and management  
Department of public management and administration

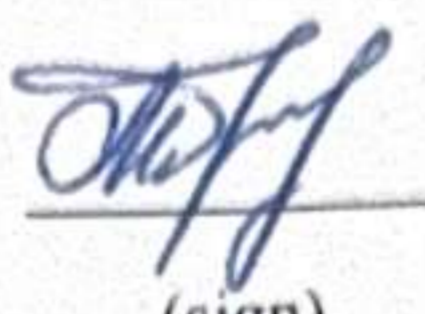
**Syllabus of the educational component**  
**PRODUCTION ECONOMICS**

Specialty	<b>D3 Management</b>
Educational program	<b>Administrative management</b>
HE level	<b>The second (master's) level of higher education</b>

Creators:

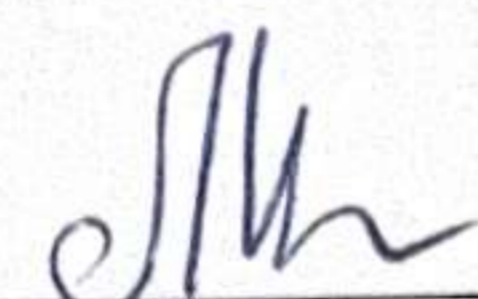


Svitlana LUKASH, PhD (Economics), ass. Professor

Considered, reviewed and approved on the meeting of the department of  <b>Public management and administration</b>	Minutes dated 03 June, 2025 # 20
	Head of the department   (sign) <b>Alina BRYCHKO</b> (name)

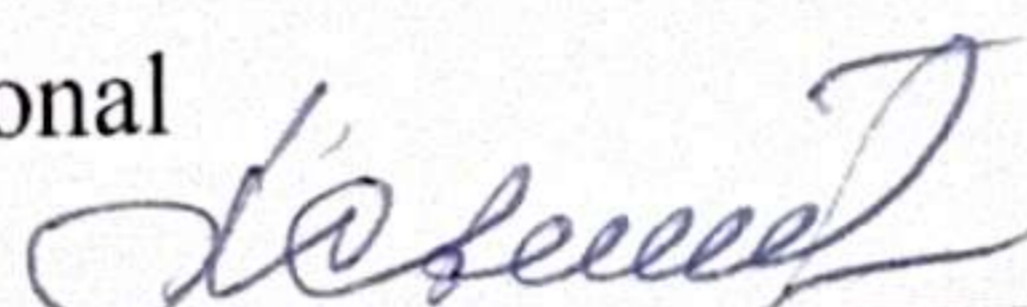
Agreed:

Guarantor of the educational program

  
(sign)


Larysa KALACHEVSKA  
(name)

Dean of the faculty, where the educational program EP is implemented

  
(sign)

Svitlana LUKASH  
(name)

A review of the work program has been provided

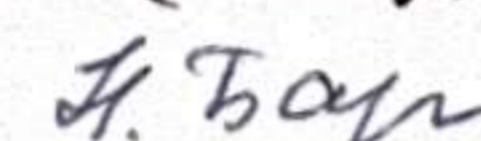
  
(sign)

Tetyana KHARCHENKO (attached)  
(name)

  
(sign)

Alina BRYCHKO (attached)  
(name)

Methodist of the Department of Education Quality, licensing and accreditation

  
(sign)

(Nadiya BARANIK)  
(name)

Registered in the electronic database: date: 17. 06 2025

Information on syllabus reviewing:

Academic year in which the changes are made	The number of the annex to the work program with a description of the changes	The changes were reviewed and approved		
		Date and number of the protocol of the meeting of the department	Head of department	Guarantor of EP

# 1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	Name of EC	Production Economics		
2.	Faculty/Department	Economics and Management/ Department of Public Management and Administration		
3.	State of EC	Obligatory		
4.	Program(s) to which the EC is attached ( <i>to be filled in for obligatory types</i> )	Educational and professional program "Administrative Management" of the second level of higher education, specialty 073 "Management"		
5.	The EC can be suggested for ( <i>to be filled in for optional types</i> )			
6.	Semester and duration of module	1 semester, 1-15 weeks		
7.	ECTS credits number	5 ECTS		
8.	Total workload and time allotment	Directed study		
		Lectures	Practicals	Self-directed study
		44 hours	30 hours	76 hours
9.	Language of instruction	English		
10.	Lecturer/Leader of educational component	Svitlana Lukash, associate professor of Public management and administration department Consultation hours - every Monday at 12:15 p.m., room 207e (economic building)		
11.1	Contact information	<a href="mailto:svitlana.lukash@snau.edu.ua">svitlana.lukash@snau.edu.ua</a> <a href="mailto:svitlana.lukash@gmail.com">svitlana.lukash@gmail.com</a>		
11.	Educational component description	<p>Production economics, as an educational discipline, ensures the formation of the ability to justify the parameters of the company's development directions, to work out the economic characteristics of the ways of their implementation, as well as the skills and abilities to independently plan the effective use and development of the organization's resources.</p> <p>The aim of the course is to form a holistic idea among students about the specifics of the definition and determination of production processes in crop production and livestock production, to determine the scope of evaluation of production processes, to develop the ability to interpret important indicators of the efficiency of production processes, to master the methods of calculating the need for living and working capital for a specified production process, formation of students' ability to qualify the costs of the used capital; mastering the methods of making calculations for production processes and determining the thresholds of productivity and profitability of production processes in plant and animal husbandry, as well as the formation of the ability to interpret the obtained results.</p> <p>The educational discipline "Economics of production" is aimed at providing students with knowledge about: methods of production processes' evaluating; assessment of the requirement in working capital; general economic aspects of crop production; economic evaluation of production processes of crop production; general economic aspects of livestock production; economic assessment of livestock production processes.</p>		

12.	Educational component aim	The purpose of studying the discipline "Production Economics" is the formation of students' theoretical and practical knowledge in the field of production economics, necessary for achieving commercial goals in business, as well as the formation of economic thinking, entrepreneurial and commercial approach to solving production tasks.
13.	Prerequisites for educational component studying, connection with other educational components of EP	The educational component is the basis for such courses as Enterprise Planning, Management Consulting.
14.	Policy of academic integrity	<p>According to the Code of Academic Integrity of the Sumy NAU, academic integrity is a set of principles, rules of behavior of participants in the educational process, aimed at forming an independent and responsible personality, capable of solving tasks in accordance with the educational level in compliance with the norms of law and social morality.</p> <p>Observance of academic integrity by students of higher education involves independent performance of educational tasks, tasks of current and final control, learning results.</p> <p>It is expected that students of higher education will adhere to the principles of academic integrity, being aware of the consequences of its violation, which is determined by the regulatory documents of the Sumy National Agrarian University, in particular the Code of Academic Integrity, the Regulations on the Prevention and Detection of Academic Plagiarism at the Sumy NAU (a full list of regulatory documents is posted on the university's website.  <a href="https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/">https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/</a> ).</p> <p>For violation of academic integrity, students of higher education may be held to the following academic responsibility:</p> <ul style="list-style-type: none"> <li>- repeated assessment (test, exam, credit, etc.);</li> <li>- repeated completion of the training course;</li> <li>- warning;</li> <li>- issuing a reprimand;</li> <li>- expulsion from the university (Part 5 of Article 48 of the draft Law of Ukraine "On Education");</li> <li>- arrest or restriction of liberty, or deprivation of liberty, with deprivation of the right to hold certain positions or engage in certain activities with a fine.</li> </ul>
15.	Keywords	Production economics, production process, efficiency, costs, revenues, economic evaluation, marginal income, variable and fixed costs, profit, liquidity, stability, profitability, payback, optimization.

## 2. LEARNING OUTCOMES UNDER THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH PROGRAM LEARNING OUTCOMES

Learning outcomes for EC (MLOs): On successful completion the educational component, the student will be able...	Program learning outcomes, PLOs (specify the number according to the numbering given in EP) <sup>1</sup>			How assessed
	PLO <sub>8</sub>	PLO <sub>13</sub>	PLO <sub>14</sub>	
MLOs 1. Apply the conceptual and categorical apparatus and tools of production economics to analyze the efficiency of the production process.			X	Conducting modular and attestation control
MLOs 2. To assess the efficiency of crop production and justify the parameters of the development directions of the industry and the enterprise as a whole.	X	X	X	Current test control (tests on the Moodle/ Kahoot platform, calculation tasks)
MLOs 3. To assess the efficiency of crop production and justify the parameters of the development directions of the industry and the enterprise as a whole.	X	X	X	Current test control (tests on the Kahoot platform, calculation tasks)
MLOs 4. Independently study educational and scientific literature, including Internet resources on production economics	X			Preparation of reports for public presentation on seminar classes

## 3. CONTENT OF THE EDUCATIONAL COMPONENT (CURRICULUM PROGRAM)

Topic. List of issues to be considered within the topic	Distribution within the general time budget			Learning resources <sup>2</sup>	
	Directed study		Self-directed study		
	Lectures	Practicals			Labs
<b>Topic 1. Methods of evaluating production processes.</b> General understanding of production theory. Simple production, interconnected production. Optimal organization of the farm. Concept of production process. Indicators characterizing production processes. Indicators of evaluation of production processes. Evaluation of the efficiency of production processes. Methods of calculating marginal income. Cost-effectiveness of the assessment of production factors.	6	2		6	1,2,4,5,6

<sup>1</sup> It must correspond to the Matrix of ensuring the programmatic learning outcomes by the relevant components of the educational program, specified for the compulsory educational components of OP I and II levels, for all (obligatory and optional EC) EP III

<sup>2</sup> A specific source from the main or additional recommended literature

<b>Topic 2. Assessment of the need for circulating capital</b> Determination of direct and variable costs. Methodology for determining the need for circulating capital for various production processes. Principles of cost systematization and classification of production factors. Differences between fixed assets and current assets. Expenses arising from the use of fixed assets.	4	4		8	1,2,4,5,6
<b>Topic 3. General economic aspects of crop production.</b> The state and trends of the development of crop production (including modern world trends). General characteristics of production processes of crop production. Principles of systematization of crops according to various criteria. Structure and changes in area under crop use. Forms of organization of arable land and principles of choosing crop rotation. Principles of fertilizer application, their types. Types of plant protection measures.	6	2		6	1,2,4,5,6
<b>Topic 4. Economic evaluation of production process:</b> Production of marketable plant products. General characteristics of crop production processes (winter wheat). Cost of manufactured products. Proportionally variable special costs. The need for production resources. Variable and fixed costs. Indicators of economic efficiency of the production process. Fertilizer requirements and their assessment. Features of assessment of nutrients (requirement, return).	4	4		8	1,2,4,5,6
<b>Topic 5. Economic evaluation of the production process:</b> Production of fodder crops. Peculiarities of production processes of fodder production. Methods of product evaluation. Proportionally variable special costs. Conditionally variable and fixed costs. Indicators of the economic efficiency of the production of fodder crops.	4	4		8	1,2,4,5,6
<b>Topic 6. General economic aspects of livestock production:</b> Content and structure of animal husbandry products, directions of its development. Modern trends in the development of animal husbandry. Economic foundations, main tasks of animal husbandry. Factors determining the development of livestock products.	4	2		6	1,2,4,5,6
<b>Topic 7. Economic evaluation of the production process:</b> <b>Dairy farming</b> General characteristics of dairy farming. The sequence of evaluation of manufactured products. Proportionally variable special costs. Conditionally variable and fixed costs. Principles of cost estimation of fodder products. Aggregation of fodder production and animal husbandry Indicators of economic efficiency.	4	4		8	1,2,4,5,6
<b>Topic 8. Economic evaluation of production process:</b> <b>Breeding and fattening of cattle (breeding heifers and fattening bulls).</b> General features of cattle breeding and fattening. Distribution of the production process. Evaluation of the received products. Proportionally variable special costs. Conditionally variable and fixed costs. Peculiarities of assessment of animals. Value of fertilizer calculation. Aggregation of fodder production and animal husbandry. Requirements for assessment of feed and nutrients. Assessment of energy needs.	4	4		8	1,2,4,5,6
<b>Topic 9. Economic evaluation of the production process:</b> <b>Breeding pig farming.</b> The main features of the process of breeding breeding pigs (dependency of feed and land, evaluation of a unit of production, etc.). The value of the initial estimate. Elements of the variable cost of maintenance of breeding pigs.	4	2		8	1,2,4,5,6
<b>Topic 10. Economic evaluation of production process:</b> <b>Pig fattening</b> The main features of the production process of fattening pigs (dependency of feed and land, evaluation of a unit of production, etc.). Principles of general additional weight calculation. Determinants of the market price of pork. Forms of sale of pork.	4	2		8	1,2,4,5,6
<b>Total</b>	<b>44</b>	<b>30</b>		<b>76</b>	

#### 4. TEACHING AND LEARNING METHODS

MLO	Teaching methods (work to be carried out by the teacher <u>during</u> <u>classroom classes</u> , consultations)	Number of hours	Teaching methods (what types of educational activities should the student <u>perform</u> <u>independently</u> )	Number of hours
MLO 1. Apply the conceptual and categorical apparatus and tools of production economics to analyze the efficiency of the production process	Lecture, practical session, discussion, explanation, express survey	16	Development of theoretical material, a report with a presentation on the topic of independent study of the discipline	12
MLO 2. To assess the efficiency of the production of plant products and to substantiate the parameters of the development directions of the industry and the enterprise as a whole	Lecture, practical session, discussion, work in small groups, explanations, solution of situational problems, express survey	16	Development of theoretical material, solution of calculation individual tasks, visual presentation of calculation results and their analysis	16
MLO 3. To assess the efficiency of the production of plant products and to substantiate the parameters of the development directions of the industry and the enterprise as a whole	Lecture, practical session, discussion, work in small groups, explanations, solution of situational problems, express survey	34	Development of theoretical material, solution of calculation individual tasks, visual presentation of calculation results and their analysis	38
MLO 4. Independently study educational and scientific literature, including Internet resources on production economics	Lecture, practical session, discussion, explanation, express survey	8	Development of theoretical material, a report with a presentation on the topic of independent study of the discipline, participation in a discussion club on the chosen topic	10
Number of hours		74		76

## 5. EVALUATION BY THE EDUCATIONAL COMPONENT

5.1.1 To assess the expected learning outcomes, it is provided:

№	Methods of summative assessment	Points / Weight in the overall assessment	The date of compilation
1.	Testing (multiple choice, open type tests)	45/45%	7-8 week
3.	INHT (calculation task)	25/25%	7-8 week
4.	Exam (written answer to open questions and performance of a practical calculation task)	30 /30%	According to the session's schedule

5.1.2 Evaluation criteria

Component	Unsatisfactory	Satisfactory	Good	Excellent
INHT	< 15 points	15-17 points	18-22 points	23-25 points
	<i>The task requirements have not been fulfilled</i>	<i>Most of the requirements are met, but some components are missing or insufficiently disclosed</i>	<i>All requirements of the task have been fulfilled</i>	<i>All the requirements of the task were met, creativity and thoughtfulness were demonstrated, and an own solution to the problem was proposed</i>
Testing	<18 points	18-21 points	22-26 points	27-30 points
	the correct answer was provided for less than 60% of the tasks	<i>the correct answer was provided for 60%-74% of the tasks</i>	<i>the correct answer was provided for 75%-89% of the tasks</i>	<i>90% or more tasks were answered correctly</i>

### 5.2 Formative assessment:

5.2.1 To evaluate the current progress in education and understand the areas of further improvement, it is provided

№	Elements of formative assessment	Date
1.	Verbal feedback from the teacher during classroom work	constantly
2.	Oral survey during classes and feedback from the teacher during classroom work	constantly
3.	Conversation and discussion during classroom lectures	constantly
4.	Written feedback from the teacher based on the results of the INHW	7-8 week
5.	Discussion of situational tasks and presentations on the subject of independent study of the discipline	constantly
6.	Verbal feedback from the teacher and students after the exam	15 week

Self-assessment can be used as an element of summative assessment and formative assessment.

### 5.3 Total number of points for EC and rating scale

The total number of points for the educational component is 100 points.

#### 5.3.1 Evaluation scale operating at the University:

The sum of points for all types of educational activities	Evaluation on a national scale	
	For an exam, course project (work), practice, or qualification work	For a credit
	90 – 100	passed
	82-89	
	75-81	
	69-74	
	60-68	
35-59	not satisfactory with the possibility of retaking	not passed with the possibility of retaking
0-34	not satisfactory with obligatory repeated study of the discipline	not passed with obligatory repeated study of the discipline

## EDUCATIONAL RESOURCES (LITERATURE)

### Main resources

#### Books, textbooks

1. The Economics of Farm Management. A Global Perspective, 2<sup>nd</sup> edition. Routledge, 2022. 608 p.
2. Ronald D. Kay, William M. Edwards and Patricia A. Duffy. Farm Management, 8th Edition. McGraw-Hill, Inc. 2019. 481 p.
3. Виробнича економіка / В.П. Галушко та ін.; за ред. В.П. Галушко, Г. Штрюбель: навч. посіб. Вінниця: Нова Книга, 2005. 400 с.

#### Methodical recommendations

4. Lukash S. E-course on “Production economics”: <https://cdn.snau.edu.ua/moodle/course/view.php?id=3250>
5. MOOC Massive Open On-line Course "Agrarian Production Economics": <https://erasmus-topas.eu/expected-results/mooc-topas>
6. Lukash S. Course-book for English-speaking Students of Economics and Management Faculty, 1<sup>st</sup> year of study master's degree, speciality 073 “Management” EP “Administrative management”. June, 2020. - 115 p.
7. Lukash S. Production economics: Economics of production: methodical recommendations for practical classes and individual work for english-speaking students of master's degree, education program “Administrative management” for daily form of studying / Sumy, 2020, 43 p.
8. Online learning materials “Corporate Planning and Investment Theory”, “Machinery costs calculation” are uploaded on the Moodle.

#### Others sources

1. I. Lozynska, S. Lukash, N. Maslak, A. Brychko (2021). DIGITALIZATION, ROBOTICS AND GENOMIC RESEARCH IN LIVESTOCK DEVELOPMENT. The International Journal of Business Analytics (IJBA) Vol. 8, Issue 2. 2021. <https://www.igi-global.com/article/digitalization-robotics-and-genomic-research-in-livestock-development/276445>. Doi:10.4018/ijban.2021040103 (Scopus+ WoS)
2. Maslak N., Brychko A., Maslak O., Lukash S. State Policy and Financial Support of Ukrainian Agrarian Economy Development . Public Policy and Administration. Vol 20, № 2 (2021). P. 189-204. DOI: <https://doi.org/10.13165/VPA-21-20-2-04>. URL: <https://ojs.mruni.eu/ojs/public-policy-and-administration/article/view/5380> (Scopus)
3. Koblianska, I., Kalachevska, L., Minta, S., Strochenko, N., & Lukash, S. (2021). Modelling and forecasting of potato sales prices in Ukraine. Agricultural and Resource Economics: International Scientific E-Journal, 7(4), 160-179. <https://doi.org/10.51599/are.2021.07.04.09> (Web of Science)
4. Lukash, S., & Konev, R. (2024). Financial support for farming enterprises in Ukraine in the context of preparation for European integration. Economy and Society, (68). Retrieved from <https://economyandsociety.in.ua/index.php/journal/article/view/5049>

DOI: <https://doi.org/10.32782/2524-0072/2024-68-179>

6. Lukash, S., Sokhan, I., & Danko, Y. (2023). Research on foreign economic activity of agrarian enterprises of Ukraine. Scientific Perspectives. Series: Economics, (1[31]), 219–228. [https://doi.org/10.52058/2708-7530-2023-1\(31\)](https://doi.org/10.52058/2708-7530-2023-1(31))

7. Lukash, S., Sokhan, I., & Danko, Y. (2023). Research on the activities of agrarian enterprises under globalization: The case of China. Scientific Works of the Interregional Academy of Personnel Management. Economic Sciences, 1(68), 56–61. <https://doi.org/10.32689/2523-4536/68-9>

#### **Additional sources**

1. [www.ktbl.de](http://www.ktbl.de)
2. [www.minagro.gov.ua](http://www.minagro.gov.ua)
3. <https://ima.hswt.de/en/triesdorf-en/mooc-en>
4. <https://ima.hswt.de/en/triesdorf-en/literature-en>
5. <http://www.fas.usda.gov/commodities.asp>
6. [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Agricultural\\_products](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Agricultural_products)
7. [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua)
8. [www.usaid.com](http://www.usaid.com)
9. [www.farm.org](http://www.farm.org)
10. [www.kurkul.ua](http://www.kurkul.ua)
11. [www.latifundist.ua](http://www.latifundist.ua)
12. [www.usda.gov.com](http://www.usda.gov.com)


#### **Software**

Computer programs MAX та Regio Max

## РЕЦЕНЗІЯ НА РОБОЧУ ПРОГРАМУ (СИЛАБУС)

Параметр, за яким оцінюється робоча програма (силабус) освітнього компонента гарантом або членом проєктної групи	Так	Ні	Коментар
Результати навчання за освітнім компонентом (ДРН) відповідають НРК	+		
Результати навчання за освітнім компонентом (ДРН) відповідають передбаченим ПРН (для обов'язкових ОК)	+		
Результати навчання за освітнім компонентом дають можливість виміряти та оцінити рівень їх досягнення	+		

Член проєктної групи ОП Адміністративний менеджмент,  
к.е.н., доцент

 Аліна БРИЧКО

Параметр, за яким оцінюється робоча програма (силабус) освітнього компонента викладачем відповідної кафедри	Так	Ні	Коментар
Загальна інформація про освітній компонент є достатньою	+		
Результати навчання за освітнім компонентом (ДРН) відповідають НРК	+		
Результати навчання за освітнім компонентом (ДРН) дають можливість виміряти та оцінити рівень їх досягнення	+		
Результати навчання (ДРН) стосуються компетентностей студентів, а не змісту дисципліни (містять знання, уміння, навички, а не теми навчальної програми дисципліни)	+		
Зміст ОК сформовано відповідно до структурно-логічної схеми	+		
Навчальна активність (методи викладання та навчання) дає змогу студентам досягти очікуваних результатів навчання (ДРН)	+		
Освітній компонент передбачає навчання через дослідження, що є доцільним та достатнім для відповідного рівня вищої освіти	+		
Стратегія оцінювання в межах освітнього компонента відповідає політиці Університету/факультету	+		
Передбачені методи оцінювання дозволяють оцінити ступінь досягнення результатів навчання за освітнім компонентом	+		
Навантаження студентів є адекватним обсягу освітнього компонента	+		
Рекомендовані навчальні ресурси є достатніми для досягнення результатів навчання (ДРН)	+		
Література є актуальною	+		
Перелік навчальних ресурсів містить необхідні для досягнення ДРН програмні продукти	+		

Доцент кафедри  
публічного управління та адміністрування,  
д.н.держ.упр., доцент



Тетяна ХАРЧЕНКО