

## SYLLABUS OF AN ACADEMIC DISCIPLINE «PRODUCTION SYSTEMS MANAGEMENT»



**Academic degree** - Bachelor's  
**Specialty** 073 Management  
**Academic programme** «Management»  
**Year of study** 3, semester 5  
**Form of study** full-time, part-time  
**Кількість кредитів ЄКТС:** 5  
**Language(s) of instruction:** English

### Lecturer of the discipline:

**Maryna Dielini**, Doctor of Economics, Professor, Professor of the Department of Production and Investment Management of NULES of Ukraine

### Lecturer's contact information (e-mail)

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### URL of the e-learning course on the NULES e-learning portal

<https://elearn.nubip.edu.ua/enrol/index.php?id=3751>

### ACADEMIC DISCIPLINE DESCRIPTION

Where to start studying the world of management? How to open the door to an interesting and dynamic world The educational component "Production Systems Management" is an elective discipline in the specialty "Investment and International Project Management", the purpose of which is to master a set of knowledge about production and its organization, analyze bottlenecks in production systems and develop proposals for their elimination, plan, design, structure and implement a process-oriented work organization, obtain actual time data and calculate lead times Use appropriate tools to build an effective labor remuneration system.

The purpose of studying the discipline "Management of Production Systems": to acquire a set of knowledge about production and its organization, to analyze bottlenecks in production systems and develop proposals for their elimination, to plan, design, structure and implement a process-oriented organization of work, to obtain actual time data and calculate the lead time, to professionally rate work and differentiate remuneration for work based on the result. Use the appropriate tools to build an effective remuneration system.

### Competences of the discipline:

**Integral competence (IC):** the ability to solve complex specialized tasks and practical problems characterized by complexity and uncertainty in the field of management or in the learning process, which involves the application of theories and methods of social and behavioral sciences.

### General competences (GC):

GC 2. Ability to preserve and increase moral, cultural, scientific values and increase the achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, to use various types and forms of physical activity for active recreation and healthy lifestyle.

GC 5 Knowledge and understanding of the subject area and understanding of professional activities.

### Special (professional) competences (SC):

СК 4. Вміння визначати функціональні області організації та зв'язки між ними.

СК 8. Здатність планувати діяльність організації та управляти часом.

### Expected Learning Outcomes (ELO):

ПРН 3. Демонструвати знання теорій, методів і функцій менеджменту, сучасних концепцій лідерства.

ПРН 5. Описувати зміст функціональних сфер діяльності організації.

ПРН 7. Виявляти навички організаційного проектування.

ПРН 8. Застосовувати методи менеджменту для забезпечення ефективності діяльності організації.

## ACADEMIC DISCIPLINE STRUCTURE

Topic	Hours (lectures/laboratory, practical, seminars)	Learning outcomes	Tasks	Assessment
<b>1 semester</b>				
<b>Module 1 Production system of the organization, production management and management of the current functioning of the production system</b>				
Topic 1. Fundamentals and organization of production management	1/3	Know the basic scientific principles of production management. Management objectives. Characteristics of management science. Analyze the patterns and principles of management.	Writing tests and essays. Performing independent work	15
Theme 2. Production program and program and production strategy of the enterprise	2/4	Understand the concepts and indicators of the enterprise's production program. Analyze the indicators of commodity, gross, realized, net and conditionally net products. The concept of assortment and nomenclature.	Execution and delivery of practical, independent work (including in elearn) Writing tests.	15
Topic 3. Production system and system and production processes at the enterprise	2/4	<i>Розуміти</i> поняття виробничої системи та виробничого процесу, видова класифікація та основні складові. Формування виробничого процесу та його структура. <i>Аналізувати</i> принципи раціональної організації виробничого процесу. Характеристика виробничого циклу: склад і структура.	Execution and delivery of practical, independent work (including in elearn) Writing tests.	15
Topic 4. Production capacity and capacity and production potential enterprises	2/4	Know the concepts and measurements, types of production capacity of the enterprise: Calculate the main types of capacity of the enterprise. The factors that determine the production capacity of the enterprise. Justification of the production program by the production capacity of the enterprise.	Execution and delivery of practical, independent work (including in elearn) Writing tests.	15
<b>Module 2. Management of business activities of the enterprise</b>				
Topic 5. Management of	4/2	Know the concept and basic characteristics of material	Execution and delivery of	15

material and technical resources of the enterprise		and technical resources. Characteristics of the system management of material resources of the enterprise. Theoretical foundations of the system management of technical resources of the enterprise. Methodological approaches to evaluation of technical resources.	practical, independent work (including in elearn) Writing tests.	
Topic 6. Management of organizational resources and production infrastructure enterprises	2/2	Know the concept of organizational system, organizational resources and organizational reserves of the enterprise. Analyze the main indicators of the state and development of the organizational system and its elements. The composition, nature and tasks of the production infrastructure.	Execution and delivery of practical, independent work (including in elearn) Writing tests.	15
Topic 7. Management of product quality of the enterprise	2/4	Understand the concepts of quality and technical level of products. Quality level and indicators absolute, relative, prospective and optimal level of quality. Analyze the main quality indicators (single, complex and generalized), their characteristics. Standardization and certification (mandatory and voluntary) of products.	Execution and delivery of practical, independent work (including in elearn) Writing tests.	15
Topic 8. Management of effectiveness and efficiency of production activity of enterprises	2/3	Be able to assess the financial and economic condition and performance of the of the enterprise. Apply factors to improve production efficiency at the the enterprise.	Execution and delivery of practical, independent work (including in elearn) Writing tests.	15
<b>Всього за семестр</b>				<b>70</b>
<b>Екзамен</b>				<b>30</b>
<b>Всього за курс</b>				<b>100</b>

## ASSESSMENT POLICY

<b><i>Deadlines and exam retaking policy:</i></b>	Works that are submitted late without valid reasons will be assessed with a lower grade. Module tests may be retaken with the permission of the lecturer if there are valid reasons (e.g. a sick leave).
<b><i>Academic integrity policy:</i></b>	Cheating during tests and exams is prohibited (including using mobile devices). Term papers and essays must have correct references to the literature used
<b><i>Attendance policy:</i></b>	Attendance is compulsory. For good reasons (e.g. illness, international internship), training can take place individually (online by the faculty dean's consent)

## SCALE FOR ASSESSING STUDENTS 'KNOWLEDGE AND SKILLS

Student's rating, points	National grading of exams and credits	
	exams	credits
90-100	excellent	pass
74-89	good	
60-73	satisfactorily	
0-59	unsatisfactorily	fail

## RECOMMENDED SOURCES OF INFORMATION

1. Chopra, S., Meindl, P. Supply Chain Management: Strategy, Planning, and Operation. Pearson. 2020.
2. Heizer, J., Render, B., Munson, C. Operations Management: Sustainability and Supply Chain Management. Pearson. 2020.
3. Jacobs, F.R., Chase, R.B. Operations and Supply Chain Management. McGraw-Hill Education. 2022.
4. Krajewski, L.J., Ritzman, L.P., Malhotra, M.K. Operations Management: Processes and Supply Chains. Pearson. 2021.
5. Meredith, J.R., Shafer, S.M. Operations Management for MBAs. Wiley. 2021.
6. Nahmias, S., Olsen, T.L. Production and Operations Analysis. Waveland Press. 2020.
7. Russell, R.S., Taylor, B.W. Operations and Supply Chain Management. Wiley. 2021.
8. Schroeder, R.G., Goldstein, S.M., Rungtusanatham, M.J. Operations Management in the Supply Chain: Decisions and Cases. McGraw-Hill Education. 2019.
9. Slack, N., Brandon-Jones, A., Johnston, R. Operations Management. Pearson. 2019.
10. Stevenson, W.J. Operations Management. McGraw-Hill Education. 2020.
11. Бойко В.М., Сивак С.В. Організація і управління виробництвом: навч. посіб. Київ: Вид-во КНЕУ. 2020. 370 с.
12. Демченко М.М., Іванова Т.В. Виробничий менеджмент: підручник. Київ: КНЕУ. 2023. 355 с.
13. Зайцев Є.В., Головка В.І. Управління виробничими процесами: підручник. Київ: КНЕУ. 2021. 428 с.
14. Іноземні джерела:
15. Козак М.Р., Петрова А.С. Управління ефективністю виробництва: навч. посіб. Київ: Центр учбової літератури. 2022. 342 с.
16. Кузьмін О.Є., Мельник А.В. Менеджмент виробничих процесів: підручник. Львів: ЛНУ ім. І. Франка. 2019. 315 с.
17. Марченко І.М., Гончарук В.І. Виробничі системи і процеси: підручник. Тернопіль: ТНЕУ. 2019. 400 с.

18. Олексійчук В.В., Мироненко О.О. Моделювання виробничих процесів: підручник. Харків: Вид-во ХНУ ім. В.Н. Каразіна. 2021. 298 с.
19. Семенюк І.П., Гринюк І.Л. Інноваційні технології в управлінні виробництвом: навч. посіб. Одеса: ОНУ ім. І.І. Мечникова. 2020. 327 с.