

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
S.KUZNETS  
Kharkiv National University of Economics**



**"APPROVED"**

Deputy Head

(Vice-rector for scientific and pedagogical work)

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**Production and service management  
Syllabus  
of the educational discipline**

<b>Branch of Knowledge</b>	<b>All branches</b>
<b>Specialty</b>	<b>All specialties</b>
<b>Education level</b>	<b>First (Bachelor degree)</b>
<b>Educational Program</b>	<b>All programs</b>

<b>Type of discipline</b>	<b>Selective</b>
<b>Language of teaching, learning and grading</b>	<b>English</b>

**Head of the Department (name)**

prof. Iastremska O.M.

**Kharkiv  
S. Kuznets KhNEU  
2019**

APPROVED

at the meeting of the management, logistic and economics  
Minutes No. 1 dated August 21, 2019

Developers: T.Sigaieva

Update and re-approval letter  
syllabus

Academic year	Date of the department's meeting	Minute's number	Head of department signature

## INTRODUCTION

**Abstract of the discipline:** Production and service management has been a key element in the improvement in productivity in businesses around the world. Creating a competitive advantage through operations requires an understanding of how the operations function contributes to productivity growth.

Organization of the enterprise represents any productive process as in production and in service areas. Production and service management aims to provide an efficient and rational organization of this activity. If the operational functions are carried out efficiently, the organization can never succeed. Qualitative development of operational management can improve the balance of enterprise (organization), its flexibility to be consistently competitive. Therefore, the study of theory and practice of production and service management is always relevant in Ukraine as for industrial enterprises and enterprises that provide services.

**The purpose** of the discipline is the formation of skills development of operational strategies, establishment and use of operating systems as the basis for the attainment of the mission.

**The main objectives** the study of this discipline is: formation of students' scientific world outlook and expertise in the operating system of the enterprise, its functions and purposes and ensure effective development of business areas of the company.

Year	3	
Semester	7	
Number of credits ECTS	5	
Auditory studies	lectures	32
	practical	32
Independent work		86
Form of final checking	pass	

### Structural-logical scheme of studying the discipline:

Previous disciplines	The following disciplines
Management	Personnel Management
Marketing	Strategic Management
Business Analysis	Innovation Management
Systems Technology	

## 2. COMPETENCES AND RESULTS OF STUDYING A DISCIPLINE:

Competency	Learning results
Ability to develop a specific operating system of the organization	Essence of operational management and its components as one of the main functions of effective management of the organization
Ability to create the operating strategy of the organization	Skills to develop bases and categorical devices of operational management
Ability to evaluate the effectiveness of the operating system	Experience of analysis of forms of organization of the production process
Ability to use the tools of creation and reconstruction of production units	Experience in analyzing forms of organization of the production process
Ability to count calendar and plan specifications for different types of operating systems	Habits to assess the methods of the current functioning of the operating system
Ability to use project management techniques in specific contexts	Identification of forms of organization of the production process
Ability to organize marketing innovation activities	Analysis bases of quality management and performance management operations
Ability to evaluating and planning quality in the operating system	Ability to control and assess problems of the operating strategy of the organization
Ability to count the efficiency rates of operating systems.	Ability to initiate monitoring characteristics of the infrastructure company (organization)
Ability to justify the feasibility of implementing new techniques and technologies in the enterprise develop	Identification content and objectives for operational planning and its role in increasing the efficiency of the operating system

## 3. PROGRAM OF THE DISCIPLINE

### Content module 1.

#### Operations strategy and managing change

##### Topic 1. Introduction to the field

###### 1. 1 Production and service management.

What is production and service management. Transformation processes. Differences between services and goods. Production and service management in the organizational chart.

###### 1.2 Operations as service.

Historical development of Production and service management. . Manufacturing strategy paradigm. Service quality and productivity. Total quality management and quality certification. Business process reengineering. Supply chain management. Electronic commerce. Current issues in production and service management.

##### Topic 2. Operations Strategy and Competitiveness.

###### 2.1. Operations strategy.

2.2. Operations competitive dimension. Order winners and qualifiers: The marketing-operations link. The corporate strategy. Design process. The financial perspective. The customer perspective. The internal perspective. The learning and growth perspective. Strategic fit: Fitting operational activities to strategy. Developing a manufacturing strategy. Operations strategy in services .

### **Topic 3. Project management**

#### *3.1 Project management.*

Structuring projects. Pure project. Functional project. Matrix project. Work breakdown structure.

#### *3.2. Project control charts.*

Network-planning models. Time-cost models. Managing resources. The product development process. Economic analysis of product development projects. Sensitivity analysis to understand project trade-offs. Designing for the customer. Quality function deployment. Designing products for manufacture and assembly. Measuring product development performance.

### **Topic 4. Process analysis**

#### *4.1. Process analysis.*

Process flowcharting. Types of processes. Measuring process performance. Process analysis examples. Process throughput time reduction.

#### *4.2. Manufacturing process selection and design*

Process selection. Types of processes. Process flow structures. Product - process matrix. Specific process equipment selection. Manufacturing process flow design.

### **Topic 5. Service process selection and design**

#### *5.1. Customer-centered view of service management.*

An operational classification of services. Designing service organizations. Service strategy: Focus and advantage. Three contrasting the production-line approach. The self-service approach. The personal-attention approaches. Applying behavioral science to service encounters. New service development process.

#### *5.2. Quality management.*

Total quality management. Quality specification and quality costs. Developing quality specifications. Cost of quality. Six-sigma Quality. *ISO 90 certification.*

## **Content module 2**

### **Supply Chain Design**

#### **Topic 6. Supply chain strategy**

##### *6.1. Supply chain strategy.*

Measuring supply chain performance. Supply chain design strategy.

##### *6.2. Outsourcing. Design for logistics.*

Value density . Global sourcing. Mass customization.

#### **Topic 7. Strategic capacity management**

##### *7.1. Capacity management in operations.*

Capacity planning concepts. Economies and diseconomies of scale. The experience curve. Where economies of scale meet the experience curve. Capacity focus. Capacity flexibility. Capacity planning. Considerations in adding capacity. Determining capacity requirements. Using decision trees to evaluate capacity alternatives.

##### *7.2 Planning service capacity.*

Capacity planning in service versus manufacturing.

## **Topic 8. Lean production**

### *8.1. Lean logic.*

The Toyota production system. Elimination of waste. Respect for people. Lean implementation requirements. Lean layouts and design flows. Lean applications for line flows. Lean applications for job shops.

### *8.2. TQC (Total Quality Control)*

A stable schedule. Work with suppliers.

## **Topic 9. Operations Consulting and Reengineering**

### *9.1. Operations consulting.*

The nature of the management consulting industry. Economics of consulting firms. When operations consulting is needed. The operations consulting process. Operations consulting tool.

### *9.2. Business process reengineering (BPR).*

Principles of reengineering. Guidelines for implementation.

## **Topic 10. Aggregate sales and operations planning**

### *10.1. Sales and operations planning.*

Overview of sales and operations planning activities. The aggregate operations plan. Production planning environment. Relevant costs. Aggregate planning techniques.

## **4. EVALUATION OF THE RESULTS OF TEACHING**

The system of evaluation of the developed competencies of students takes into account the types of classes, which according to the curriculum include lectures, seminars, practical classes, as well as independent work. Evaluation of the developed competencies of students is carried out using a 100-point accumulation system. In accordance with the Provisional Regulations "On the Procedure for Evaluation of the Results of Students' Learning Based on the Accumulated Point-Rating System" of S. Kuznets KhNUE., control measures include:

current control carried out during the semester at lectures, practical, seminars and is evaluated by the sum of the points scored (maximum amount – 100 points);

modular control carried out in the form of a colloquium as an intermediate mini-exam on the initiative of the teacher, taking into account the current control over the relevant content module and aims to get an integrated evaluation of the student's learning outcomes after studying the material from the logically completed part of the discipline - content module;

final / semester control, conducted in the form of a credit, according to the schedule of the educational process.

The procedure for carrying out the current evaluation of students' knowledge. Evaluation of student's knowledge during seminars, practical and doing individual tasks is carried out according to the following criteria:

performing calculations in the process of performing individual tasks and tasks submitted for consideration in an audience; logic, structure, style of presentation of the material in written works and speaking in the audience, ability to substantiate their position, generalize information and draw conclusions; arithmetic correctness of doing an individual and complex calculation task; essence of operational management and its components as one of the main functions of effective management of the organization; Identification content and objectives for operational planning and its role in increasing the efficiency of the operating system; skills to develop bases and categorical devices of operational management; experience of analysis of forms of organization of the production process, acquaintance with the recommended literature, as well as contemporary literature on the

issues under consideration; ability to initiate monitoring characteristics of the infrastructure company;

The general criteria for evaluating extracurricular independent work of students are as follows: depth and strength of knowledge, level of thinking, ability to systematize knowledge on specific topics, ability to make sound conclusions, possession of categorical apparatus, skills and techniques for doing practical tasks, ability to find necessary information, carry out its systematization and processing, self-realization at practical studies and seminars.

**The final control of knowledge** and competences of students in the discipline is carried out on the basis of a credit, the task of which is to check the student's understanding of the program material in general, logic and interrelations between the individual sections, ability to use the accumulated knowledge creatively, ability to formulate their attitude to a particular problem of the discipline etc.

A student should be **considered certified** if the sum of the points obtained on the basis of the results of the final / semester credit of academic performance is equal to or exceeds 60.

The total score of the points for the semester is: "60 and more points are credited", "59 and less points are no credit" and entered in the "Record of Success" of the academic discipline.

***Distribution of points by weeks***

Themes of the content module			Lecture classes	Practical classes	Creative task	Presentation	Written control work	Colloquium	Total
Content module 1.	Theme 1	week 1	1	1					2
	Theme 2	week 2	1	1					2
	Theme 3	week 3	1	1					2
	Theme 4	week 4	1	1	10				12
	Theme 5	week 5	1	1					2
Content module 2	Theme 6	week 6	1	1					2
	Theme 7	week 7	1	1					2
	Theme 8	week 8	1	1			5		7
	Theme 9	week 9	1	1	10				12
	Theme 10	week 10	1	1		15		40	57
<b>Total</b>			10	10	20	15	5	40	100

## SCALE OF GRADING: NATIONAL AND ECTS

Total score for all types of educational activities	Score ECTS	Score on a national scale	
		for exam, course project (work), practical studies	for credit
90 - 100	A	excellent	credited
82 - 89	B	good	
74 - 81	C		
64 - 73	D		
60 - 63	E	satisfactory	no credit
35 - 59	FX	unsatisfactory	
1 - 34	F		

## 5. RECOMMENDED LITERATURE

### Main

1. Іванова В. Й. Операційний менеджмент у системі управління організацією навчальної дисципліни «Операційний менеджмент»: навчальний посібник Ч.2 / В. Й. Іванова, О. М. Тімонін, К. В. Ларіна. - Х.: Вид. ХНЕУ, 2011. - 160 с.
2. Малярєвський Ю.Д., Лабунська С.В., Безкоровайна Л.В. Перспективи управлінського обліку: організаційно-економічний механізм як основа ефективної операційної діяльності підприємства [Текст]: монографія / Харківський національний економічний університет. - Х.: ХНЕУ, 2008 - 161 с.
3. Чейз Ричард Б. Производственный и операционный менеджмент / Ричард Б. Чейз, Николас Дж. Эквилайн, Роберт Ф. Якобе; пер. с англ. — 8-е изд. — Москва:Издательский дом "Вильямс", 2012. - 704 с.
4. Ястремська О.М., Годзик В.Ф., Хміль Т.М., Кіржнер Л.О. Організація діяльності підприємства навчальної дисципліни "Операційний менеджмент" [Текст]: навч. посіб. / Харківський національний економічний університет. - Х.: ХНЕУ, 2008 - 222 с.
5. Chase R. B., Aquilano N. J., Jacobs F. R. Operations Management for Competitive Advantage [Текст] - 9-th ed. - Boston: McGraw-Hill, 2001 - 763 p.
6. Lee Seng M. Production and service management / Lee Seng M., Mark J. Schniderjans. - Boston, Toronto: Houghton Mifflin Company, 2016. - 605 p.

### Additional

7. Ананькина Е. Н. Контроллинг как инструмент управления предприятием / Е. А. Ананькина, С. В. Данилочкин, Н. Г. Данилочкина; Под ред. Н. Г. Данилочкиной. — Москва: Аудит, ЮНИТИ, 2001. - 278 с.
8. Варкута С. А., Егоров Ю. Н. Планирование на предприятии / С. А. Варкута, Ю. Н. Егоров Москва: ИНФРА-М, 2001. - 176 с.
9. Василенко В. А. Операционное и ситуационное управление в системе менеджмента учебн пособие / В. А. Василенко, И. Е. Мельник. - Москва: МГИУ, 2012. - 530 с.
10. Козловский В. А. Производственный и операционный менеджмент учебник В. А. Козловский, Т. В. Маркина, В. М. Макаров. - СПб.: Специальная литература, 1998. - 368 с.
11. Плоткін Я. Д. Виробничий менеджмент / Я. Д. Плоткін, І. Н. Пашено. - Львів: ВЦ "ІТЕЛЕКТ+", 2017. - 140 с.



12. Соснін О. С. Виробничий і операційний менеджмент : навч. посібник / О.С. Соснін, В. В. Казарцев. – Київ.: Вид. Європ. ун-ту, 2017. –148 с.
13. Яременко О. Л. Операционный менеджмент : учебник / О. Л. Яременко А. М. Сумец. – Харьков : ФОЛІО, 2002. – 213 с.
14. Hanna M. D. Integrated production and service management. Adding value for customers M. D. Hanna, W. R. Newman. – 1st. edition. – New Jersey : Prentice Hall, 2017. – 753 p.
15. Heizer J. Principles of production and service management / J. Heizer, B. Render. – 4th edition. – New Jersey : Prentice Hall, 2016. – 716 p.

#### **Information resources on the Internet**

16. Production and service management. Сайт персональних навчальних систем ХНЕУ ім. С. Кузнеця – [Електронний ресурс]. – Режим доступу: <https://pns.hneu.edu.ua/enrol/index.php?id=5288>

