

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**  
**SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY OF ECONOMICS**

# **OPERATIONS MANAGEMENT**

**Guidelines to self-study**  
**of Bachelor's (first) degree students**  
**of speciality 073 "Management"**

**Kharkiv**  
**S. Kuznets KhNUE**  
**2017**

UDC 005.92(07.034)

O-63

**Compiled by T. Sigaieva**

Затверджено на засіданні кафедри економіки, організації та планування діяльності підприємств.

Протокол № 2 від 14.01.2017 р.

*Самостійне електронне текстове мережеве видання*

**Operations Management** : guidelines to self-study of Bachelor's O-63 (first) degree students of speciality 073 "Management" [Electronic resource] / compiled by T. Sigaieva. – Kharkiv : S. Kuznets KhNUE, 2017. – 26 p. (English)

The plan of self-study on the academic discipline, practical tasks and guidelines for doing them as well as questions for consolidation of knowledge are presented.

For Bachelor's (first) degree students of speciality 073 "Management".

**UDC 005.92(07.034)**

# Introduction

Operations management has been a key element in the improvement of businesses productivity 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 both in production and in service areas. Operations Management aims to provide an efficient and rational organization of this activity. If the operational functions are carried out inefficiently, the organization can never succeed. Qualitative development of operational management can improve the balance of the enterprise (organization), its flexibility to be consistently competitive. Therefore, the study of theory and practice of operations management is always relevant in Ukraine both for industrial enterprises and enterprises that provide services.

The academic discipline "Operations Management" refers to the disciplines designed for students of training direction "Management". It is a cycle of management disciplines obligatory for managers of organizations regardless of the ownership type and legal form of management.

**The purpose of the academic discipline "Operations Management"** is the formation of skills in the development of operational strategies, establishment and use of operating systems as a basis for the accomplishment of the mission.

**The object of the discipline** is the operating system of the enterprise, its functions and purposes.

**The subject** is planning, development and effective utilization of resources of the operating system under the market conditions.

The task is mastering the knowledge of the theory of operating systems, formation of skills and planning and monitoring their activities to ensure effective management of enterprises (organizations).

The importance of the matters dealt with in the discipline is conditioned by the need for knowledge of basic principles, methods, the essence of effective operations, methods of operating the operational management system, the impact of the operational management on the performance and competitiveness of enterprises (organizations).

# 1. Qualification requirements for students

The academic discipline "Operations Management" is referred to as a normative discipline that ensures the formation of skills provided by educational qualification characteristics.

The discipline provides the basic and overall legal training of students and is based on the study of such subjects as "Systems Technology", "Information and Computer Technology", "Operations Research", "Economy".

The discipline lays the foundation for further study of the disciplines related to industry specifics of each profession and specialization.

The knowledge of this discipline will help to successfully master such subjects as "Strategic Management", "Innovation Management", "Personnel Management", and perform the course of studies and final thesis.

In the course of studies, students receive the necessary knowledge. Of great importance in the study and consolidation of knowledge is self-study of students.

## **The competences formed in the course of studying the academic discipline "Operations Management"**

As a result of learning the discipline, students must

### **know:**

the essence of operational management and its components as one of the main functions of effective management of the organization;

the bases and the framework of categories and concepts of operational management;

the structure of operating systems, their classification;

the essence and basic principles of operational processes;

the basis of operational processes in space and time;

the characteristics of the company (organization) infrastructure;

the forms of organization of the production process;

the essence, stages and phases of technical training;

the composition and characteristics of business units for the production stage;

the basis of comprehensive services in the operating system;

the problems of the operating strategy of the organization;

the basics of operating systems;

the content and objectives of operational planning and its role in increasing the efficiency of the operating system;

the elements of the operational planning of operational activities of the various types of operating systems;

the methods of the current functioning of the operating system;

the bases of operations quality management and performance management;

**be able to:**

create the operating strategy of the organization;

develop a specific operating system of the organization;

evaluate the effectiveness of the operating system;

determine the type of the operating system;

justify production of the enterprise;

efficiently organize the production process according to scientific principles;

economically justify the feasibility of implementing new techniques and technologies at the enterprise;

use the tools of creation and reconstruction of production units;

choose a system of operational planning of the specific operating system;

count calendar and plan specifications for different types of operating systems;

use project management techniques in specific contexts;

evaluate and plan quality in the operating system;

count the efficiency rates of operating systems.

## **2. Independent work of students**

An essential element of successful learning of the discipline is the independent work of students that includes: lectures, work on lecture, legislative, regulatory and instructional materials, preparation for seminars and practical studies, work on the questions for independent work.

The main types of students' independent work are:

1. The study of the lecture material.
2. Studying the recommended literature.
3. Learning the key terms and concepts on the topics of the discipline.
4. Preparation for practical training and testing.

# **Content module 1. Operations strategy and managing change**

## **Theme 1. Introduction to the field**

1. What is operations management?
2. Historical development of OM.

**Recommended reading** : main [1; 6]; additional [7; 11; 13; 15; 18; 20].

## **Theme 2. Operations strategy and competitiveness**

1. The corporate strategy.
2. Developing a manufacturing strategy.
3. Operations strategy in services.
4. Types of movement of the subjects of labor.

**Recommended reading**: main [1; 3; 4]; additional [6; 7; 20; 23].

## **Theme 3. Project management**

1. Project management.
2. Managing resources.

**Recommended reading**: main [1 – 3]; additional [7; 13 – 16; 20; 23].

## **Theme 4. Product design**

1. The product development process.
2. Measuring the product development performance.

**Recommended reading**: main [2 – 4]; additional [5; 11; 16; 21].

# **Content module 2. Process selection and design**

## **Theme 5. Process analysis**

1. Process analysis.
2. Process throughput time reduction.

**Recommended reading**: main [2; 3; 4]; additional [5; 11; 16; 21].

## **Theme 6. Manufacturing process selection and design**

1. Specific process equipment selection.
2. Manufacturing process.

**Recommended reading:** main [1 – 3]; additional [7; 12 – 15; 19; 22].

## **Theme 7. Service process selection and design**

1. Service strategy: focus and advantage.
2. New service development process.

**Recommended reading:** main [1]; additional [7; 19; 22].

## **Theme 8. Quality management**

1. Service quality measurement.
2. Developing quality specification.

**Recommended reading:** main [2 – 3]; additional [5; 8; 14; 17; 21].

## **Content module 3. Supply chain design**

### **Theme 1. Supply chain strategy**

1. Global sourcing.
2. Mass customization.

**Recommended reading:** main [1 – 6]; additional [3; 4; 9; 17; 21].

### **Theme 2. Strategic capacity management**

1. Using decision trees to evaluate capacity alternatives.
2. Planning service capacity.

**Recommended reading:** main [1 – 3]; additional [5; 7; 14; 19].

### **Theme 3. Lean production**

1. The Toyota production system.
2. Lean applications for line flows.

**Recommended reading:** main [1; 4]; additional [8; 10; 12].

## **Theme 4. Operations consulting and reengineering**

1. Business process reengineering (BPR).
2. The operations consulting process.

**Recommended reading:** main [1; 8]; additional [3; 6; 15].

## **Content module 4. Planning and controlling the supply chain**

## **Theme 5. Aggregate sales and operations planning**

1. Aggregate planning techniques.
2. The aggregate operations plan.

**Recommended reading:** main [2; 5]; additional [5; 11; 16].

## **Theme 6. Inventory control**

1. Multiperiod inventory systems.
2. Inventory planning.

**Recommended reading:** main [3; 5]; additional [5; 17; 21].

## **Theme 7. Material requirements planning**

1. Demand for products.
2. Forecasting demand.

**Recommended reading:** main [1; 6]; additional [2; 5; 23].

## **3. Guidelines for carrying out independent work**

### **Content module 1. Operations strategy and managing change**

#### **Task 1**

A decision tree is a schematic representation of the alternatives available to a decision maker and their possible consequences. The term gets its name from the tree-like appearance of the diagram.



Although tree diagrams can be used in place of a payoff table, they are particularly useful for analyzing situations that involve sequential decisions.

A decision tree is composed of a number of nodes that have branches emanating from them.

Square nodes denote decision points, and circular nodes denote chance events. Read the tree from left to right. Branches leaving square nodes represent alternatives; branches leaving circular nodes represent chance events.

**The conditions of the task.** A manufacturer of small power tools is faced with foreign competition, which necessitates that it either modify (automate) its existing product or abandon it and market a new product. Regardless of which course of action it follows, it will have the opportunity to drop or raise prices if it experiences a low initial demand.

Analyze the decision tree, and determine which course of action should be chosen to maximize the expected monetary value. (Assume monetary amounts are present value profits.)

### **The guidelines for doing the task**

Analyze the tree from right to left by calculating the expected values for all possible courses of action and choosing the branch with the highest expected value. Begin with the top (modify product) branch.

Decision 1

Drop price branch:  $E(X) = 20\,000(0.2) + 150\,000(0.8) = 124\,000$

Decision 2

Raise price branch:  $E(X) = 40\,000(0.9) + 200\,000(0.1) = 56\,000$

Therefore, choose to drop price and use 124 000.

*Note:* 124 000 is an expected monetary value (EMV) which can be entered above the square box under Decision 2. Place slash marks through the other (no usable) alternative.

## **Content module 2. Process selection and design**

### **Task 2 (example)**

**The conditions of the task.** Suppose a photographic paper manufacturer has a coating line with a design capacity of 200 square metres per minute, and the line is operated on a 24-hour day, 7 days per week (168 hours per week) basis.

The design capacity is  $200 \times 60 \times 24 \times 7 = 2.016$  million square metres per week. The records for a week's production show the following lost production time:

Product changeovers (setups): 20 hrs.

Regular preventative maintenance: 16 hrs.

No work scheduled: 8 hrs.

Quality sampling checks: 8 hrs.

Shift change times: 7 hrs.

Maintenance breakdown: 18 hrs.

Quality failure investigation: 20 hrs.

Coating material stockouts: 8 hrs.

Labour shortages: 6 hrs.

Waiting for paper rolls: 6 hrs.

During this week the actual output was only 582 000 square metres.

The first five categories of lost production occur as a consequence of reasonably unavoidable, planned occurrences and amount to a total of 59 hours. The last five categories are unplanned and avoidable losses and amount to 58 hours. The measure is hours of production.

### **The guidelines for doing the task**

Design capacity = 168 hours per week.

Effective capacity =  $168 - 59 = 109$  hrs.

Actual output =  $168 - 59 - 58 = 51$  hrs.

Utilization =  $0.304$  (30 %).

Efficiency =  $0.468$  (47 %).

## **Content module 3. Supply chain design**

### **Task 3**

**The conditions of the task.** A local government office issues hunting licences. Demand for these licences is relatively slow in the first part of the year but then increases after the middle of the year before slowing down again towards the end of the year. The department works a 220-day year on a 5-days-a-week basis. Between working days 0 and 100, demand is 25 per cent of demand during the peak period which lasts between day 100 and day 150. After 150 demand reduces to about 12 per cent of the demand during the peak period. In total, the department processes 10 000 applications per year. The department has 2 permanent members of staff who are capable

of processing 15 licence applications per day. If an untrained temporary member of staff can only process 10 licences per day, how many temporary staff should the department recruit between days 100 and 150?

If a new computer system is installed that allows experienced staff to increase their work rate to 20 applications per day, and untrained staff to 15 applications per day, (a) does the department still need 2 permanent staff, and (b) how many temporary members of staff will be needed between days 100 and 150?

#### **Task 4**

A field service organization repairs and maintains printing equipment for a large number of customers.

It offers one level of service to all its customers and employs 30 staff. The operation's marketing vice-president has decided that in future the company will offer 3 standards of service, platinum, gold and silver. It is estimated that platinum-service customers will require 50 per cent more time from the company's field service engineers than the current service. The current service is to be called "the gold service". The silver service is likely to require about 80 per cent of the time of the gold service. If future demand is estimated to be 20 per cent platinum, 70 per cent gold and 10 per cent silver service, how many staff will be needed to fulfill demand?

#### **Task 5**

Consider how airlines cope with balancing capacity and demand. In particular, consider the role of yield management. Do this by visiting the web site of a low-cost airline, and for a number of flights price the fare that is being charged by the airline from tomorrow onwards. In other words, how much would it cost if you needed to fly tomorrow, how much if you needed to fly next week, how much if you needed to fly in 2 weeks, etc. Plot the results for different flights and debate the findings.

### **Content module 4. Planning and controlling the supply chain**

#### **Task 6**

Roberts Auto Sales and Service (RASAS) consists of three car dealerships that sell and service several makes of American and Japanese cars, two auto parts stores, a large body shop and car painting business, and an auto salvage yard.

Vicky Roberts, the owner of RASAS, went into the car business when she inherited a Ford dealership from her father. She was able to capitalize on her knowledge and experience to build her business into the diversified and successful miniempire it is today. Her motto, "Sell 'em today, repair 'em tomorrow!" reflects a strategy that she refers to in private as "Get 'em coming and going".

Roberts has always retained a soft spot in her heart for high-performance Mustangs and just acquired a 1965 Shelby Mustang GT 350 that needs a lot of restoration. She also notes the public's growing interest in the restoration of vintage automobiles. Roberts is thinking of expanding into the vintage car restoration business and needs help in assessing the feasibility of such a move.

She wants to restore her 1965 Shelby Mustang to mint condition, or as close to mint condition as possible. If she decides to go into the car restoring business, she can use the Mustang as an exhibit in sales and advertising and take it to auto shows to attract business for the new shop.

Roberts believes that many people want the thrill of restoring an old car themselves, but they do not have the time to run down all the old parts. Still, others just want to own a vintage auto because it is different and many of them have plenty of money to pay someone to restore an auto for them.

Roberts wants the new business to appeal to both types of people.

For the first group, she envisions serving as a parts broker for NOS ("new old stock"), new parts that were manufactured many years ago and are still packaged in their original cartons. It can be a time-consuming process to find the right part. RASAS could also machine new parts to replicate those that are hard to find or that no longer exist.

In addition, RASAS could assemble a library of parts and body manuals for old cars to serve as an information resource for do-it-yourself restorers.

The do-it-yourselfers could come to RASAS for help in compiling parts lists, and RASAS could acquire the parts for them. For others, RASAS would take charge of the entire restoration.

Roberts asked the director of service operations to take a good look at her Mustang and determine what needs to be done to restore it to the condition it was in when it came from the factory more than 40 years ago. She wants to restore this car in time to exhibit it at the Detroit Auto Show. If the car gets a lot of press, it will be a real public relations coup for RASAS – especially if Roberts decides to enter this new venture. Even if she does not, the car will be a showpiece for the rest of the business.

Roberts asked the director of service operations to prepare a report about what is involved in restoring the car and whether it can be done in time for the Detroit show in 45 working days using PERT/CPM. The parts manager, the body shop manager, and the chief mechanic have provided the following estimates of times and activities that need to be done, as well as cost estimates:

A. Order all needed material and parts (upholstery, windshield, carburetor, and oil pump). Time: 2 days. Cost (telephone calls and labor): \$100.

B. Receive upholstery material for seat covers. Cannot be done until order is placed. Time: 30 days. Cost: \$2,100.

C. Replace carburetor and oil pump. Do after engine has been pulled from chassis and after carburetor and oil pump have been received. Time: 1 day. Cost: \$200.

D. Rechrome the chrome parts. Chrome must have been removed from the body first. Time: 3 days. Cost: \$210.

E. Reinstall engine. Do after valves are reground and carburetor and oil pump have been installed. Time: 1 day. Cost: \$200.

F. Put doors, hood, and trunk back on frame. The doors, hood, and trunk must have been repaired first. The frame must have had its rust removed first. Time: 1 day. Cost: \$240.

G. Rebuild transmission and replace brakes. Do so after the engine has been reinstalled and the doors, hood, and trunk are back on the frame. Time: 4 days. Cost: \$2,000.

H. Replace windshield. Windshield must have been received. Time: 1 day. Cost: \$100.

I. Put fenders back on. The fenders must have been repaired first, the transmission rebuilt, and the brakes replaced. Time: 1 day. Cost: \$100.

J. Paint car. Cannot be done until the fenders are back on and windshield replaced. Time: 4 days. Cost: \$1,700.

K. Reupholster interior of car. Must have received upholstery material first. Car must have been painted first. Time: 7 days. Cost: \$2,400.

L. Put chrome parts back on. Car must have been painted and chrome parts rechromed first. Time: 1 day. Cost: \$100.

M. Pull car to the Detroit Auto Show. Must have completed reupholstery of interior and have put the chrome parts back on. Time: 2 days. Cost: \$1,000.

Roberts wants to limit expenditures on this project to what could be recovered by selling the restored car. She has already spent \$50,000 to acquire the car. In addition, she wants a brief report on some of the aspects of the proposed business, such as how it fits in with RASAS's other businesses and what RASAS's operations task should be with regard to cost, quality, customer service, and flexibility.

In the restoration business there are various categories of restoration.

A basic restoration gets the car looking great and running, but a mint condition restoration puts the car back in original condition – as it was "when it rolled off the line". When restored cars are resold, a car in mint condition commands a much higher price than one that is just a basic restoration. As cars are restored, they can also be customized. That is, something is put on the car that could not have been on the original. Roberts wants a mint condition restoration for her Mustang, without customization. (The proposed new business would accept any kind of restoration a customer wanted.)

The total budget cannot exceed \$70,000 including the \$50,000 Roberts has already spent. In addition, Roberts cannot spend more than \$3,600 in any week given her present financial position. Even though much of the work will be done by Roberts's own employees, labor and materials costs must be considered. All relevant costs have been included in the cost estimates.

### Questions

1. Using the information provided, prepare the report that Vicky Roberts requested, assuming that the project will begin immediately. Assume 45 working days are available to complete the project, including transporting the car to Detroit before the auto show begins. Your report should briefly discuss the aspects of the proposed new business, such as the competitive priorities that Roberts asked about.

2. Construct a table containing the project activities using the letter assigned to each activity, the time estimates, and the precedence relationships from which you will assemble the network diagram.

3. Draw a network diagram of the project.

4. Prepare a project budget showing the cost of each activity and the total for the project. Can the project be completed within the budget? Will the project require more than \$3,600 in any week? To answer this question, assume that activities B, C, and D must be paid for when the item is received (the earliest finish time for the activity). Assume that the costs of all other activities that span more than one week can be prorated.

Each week contains five work days. If problems exist, how might Roberts overcome them?

## **4. Questions for self-assessment**

### **Content module 1. Operations strategy and managing change**

1. What is operations management?
2. What factors account for resurgence of interest in OM today?
3. Differences between services and goods.
4. OM in the organizational chart.
5. Operations as a service.
6. Historical development of OM.
7. Total quality management and quality certification.
8. Current issues in operations management.
9. What is operations strategy?
10. Operations competitive dimension.
11. Attacking through operations.
12. Productivity measurement.
13. Strategic fit – fitting operational activities to strategy.
14. What is project management?
15. Structuring a project.
16. A project control chart.
17. Managing resources.
18. Time-cost models.
19. The marketing-operations link.
20. The corporate strategy.

### **Content module 2. Process selection and design**

21. Types of processes.
22. Process analysis examples.
23. Measuring the process performance.
24. Designing for the customer.
25. Process selection.
26. Break-even analysis.
27. Manufacturing product development performance.
28. Manufacturing process selection and design.

29. An operational classification of services.
30. Designing service organizations.
31. Total quality management.
32. Quality specification and quality costs.
33. ISO 9000 Certification.
34. Basic product layout formats.
35. Group technology.
36. Fixed-position layout.
37. Office layout.

### **Content module 3. Supply chain design**

38. The nature of services.
39. An operational classification of services.
40. Three contrasting service designs.
41. Supply chain strategy.
42. Measuring supply chain performance.
43. Outsourcing.
44. Value density.
45. Mass customization.
46. Capacity management in operations.
47. Capacity planning concepts.
48. Planning the service capacity.
49. Just-in-time logic.
50. Just-in-time service.
51. The Japanese approach to productivity.
52. An overview of operations planning activities.
53. Aggregate production planning.

### **Content module 4. Planning and controlling the supply chain**

54. Yield management.
55. The definition of inventory.
56. The purpose of inventory.
57. Inventory cost.
58. The inventory system.
59. Special purpose models.
60. JIT services.



61. The Toyota production system.
62. Capacity focus, flexibility and planning.
63. Decision trees.
64. Independent versus depend demand.
65. Material requirement planning system.
66. Material requirement planning structure.
67. Flow manufacturing.
68. Where can MRP be used?

## **5. Tests for self-assessment**

1. Explain Six Sigma doctrines:
  - a. continuous efforts to achieve stable and predictable process results;
  - b. manufacturing and business processes have characteristics that can be measured, analyzed, controlled and improved;
  - c. a and b.
  
2. The major principles of the quality control system are:
  - a. customer focus, involvement of people, system approach to management;
  - b. leadership, continual improvement, factual approach to decision making;
  - c. a and b.
  
3. What are the assembly line principles:
  - a. place the tools and the men in the sequence of the operation so that each component part shall travel the least possible distance while in the process of finishing;
  - b. use work slides or some other form of carrier so that when a workman completes his operation, he drops the part always in the same place – which place must always be the most convenient place to his hand – and if possible have gravity to carry the part to the next workman for his operation;
  - c. a and b?
  
4. Semi-finished stock is also known as \_\_\_\_\_ inventory.
  - a. pipeline;
  - b. cycle;
  - c. work in process.

5. Which of these reasons to keep inventory can lead to improved quality:

- a. it allows processes to flow more smoothly;
- b. it makes deliveries more reliable.;
- c. it enables the best material to be sorted prior to production?

6. Which of these would an operations manager not be responsible for:

- a. sales and marketing;
- b. selecting suppliers;
- c. recruiting employees?

7. In the mass production era there were 4 types of operations process: complex project, batch production, assembly line and \_\_\_\_\_.

- a. job shop;
- b. mass process;
- c. continuous flow process.

8. Aggregate planning strategies include:

- a. chase approach;
- b. level approach and hybrid strategies;
- c. a and b.

9. The inventory management concept is:

- a. reduction in investment in inventory and proper and efficient use of raw material;
- b. improvement in production and sales and efficient and optimum use of physical as well as financial resources;
- c. a and b.

10. Types of production are:

- a. mass;
- b. batch;
- c. a and b.

11. Types of the operational cycle are:

- a. consecutive, parallel;
- b. parallel-consecutive;
- c. a and b.

12. How is time cycle calculated in the consecutive type of cycle:

- a.  $n \times t/c$ ;
- b.  $n + t/c$ ;
- c.  $n - t/c$ ?

13. How is time cycle calculated in the parallel-consecutive type of cycle:

- a.  $T_{\text{consecutive}} + T$ ;
- b.  $T_{\text{consecutive}} - T$ ;
- c.  $T_{\text{consecutive}} / T$ ?

14. The main objective of operations management is not:

- a. efficiency;
- b. profit;
- c. productivity.

15. The critical operation dimensions a process or supply chain must possess to satisfy internal or external customers, both now and in the future are:

- a. support processes;
- b. corporate strategy;
- c. competitive priorities.

16. \_\_\_\_\_ categorizes the firm's customers, identifies their needs and assesses competitor strength.

- a. Market analysis;
- b. Break-even analysis;
- c. Market segmentation.

17. Corporate strategy specifies the means by which operations management implements corporate strategy and helps to build a customer-driven firm.

- a. true;
- b. false.

18. What is operations management?

a. Operations management can be defined as the process of continuous improvement of the system and the process undertaken to deliver and manufacture firm's primary products and services.

b. Operations management is concerned with the design, management, and improvement of the systems that create the organization's goods or services. The majority of most organizations' financial and human resources are invested in the activities involved in making products or delivering services. Operations management is therefore critical to organizational success.

c. a and b.

19. What is rhythm in operations management:

a. strict accomplishment (realization) of the plan in terms of quantity and quality;

b. strict accomplishment (realization) of the plan as to terms and nomenclature;

c. a and b?

20. What is aggregate planning:

a. aggregate planning is used to determine the quantity and time of production according to demand;

b. the goal of such planning is minimization of expenses;

c. a and b?

21. Between what types of lot production distinction is made depending on the quantity of products in the lot:

a. large lot, medium lot;

b. small lot;

c. a and b?

22. What kind of lot production is similar in character to mass production:

a. small lot production;

b. middle lot production;

c. large lot production?

23. What kind of lot production is designed for manufacture of articles or machines intended for experimentation under various conditions:

a. small lot production;

b. middle lot production;

c. large lot production?

24. "All components are completed at a workstation before they move to the next phase" is the primary characteristic of:

- a. batch production;
- b. mass production;
- c. unit production.

25. What method of production is the most suitable one for manufacturing identical items or those that are produced in limited quantity or in a limited amount of time:

- a. batch production;
- b. mass production;
- c. unit production?

26. Which factors influence the construction of the decision tree:

- a. payoff values are equivalent to the net profit (loss) expected in the end of some outcome;
- b. outcome probability, which should be 100 % in total;
- c. a and b?

27. What does "a decision tree" refer to:

- a. a decision tree is the method one can use to help make good choices (decisions of high costs and risks);
- b. it can be characterized as a graphic, efficient, revealing and complementary tool for decision-makers;
- c. a and b?

28. Which one does not use operations management:

- a. a bank;
- b. a supermarket;
- c. they all use it?

29. An operations manager is not likely to be involved in

- a. the design of products and services to satisfy customers' wants and needs;
- b. the quality of products and services to satisfy customers' wants and needs;
- c. the identification of customers' wants and needs.

30. Which of the following would not be normally considered as a key feature of operations management:

- a. operations is the area of a business where most people work;
- b. most new technologies are implemented in operations areas;
- c. world class operations can give an organization competitive advantage?

## 6. Recommended reading

### Main

1. Гэлловэй Л. Операционный менеджмент. Принципы и практика / Л. Гэлловэй. – Санкт-Петербург : Питер, 2000. – 320 с.

2. Гріфін Р. Основи менеджменту : підручник / Р. Гріфін, В. Яцура ; [за ред. В. Яцура]. – Львів : Бак, 2001. – 624 с.

3. Дилфорт Д. Производственный и операционный менеджмент / Д. Дилфорт. – Минск : б. и., 1995. – 424 с.

4. Лайкер Дж. Дао Toyota: 14 принципов менеджмента ведущей компании мира / Дж. Лайкер ; пер. с англ. – 2-е изд. – Москва : Альпина Бизнес Букс, 2006. – 400 с.

5. Лайкер Дж. Практика Дао Toyota: Руководство по внедрению принципов менеджмента Toyota / Дж. Лайкер, Д. Майер ; пер. с англ. – Москва : Альпина Бизнес Букс, 2006. – 588 с.

6. Либерман Е. Г. Организация и планирование производства на машиностроительных предприятиях / Е. Г. Либерман. – Москва : Машиностроение, 1967. – 592 с.

7. 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", 2001. – 704 с.

8. Lee Seng M. Operations Management / Lee Seng M., Mark J. Schniederjans. – Boston, Toronto : Houghton Mifflin Company, 1994. – 605 p.

### Additional

9. 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.

10. Бодди Д. Основы менеджмента / Д. Бодди, Р. Пэйтон ; пер. с англ. под ред. Ю. Н. Капуревского. – Санкт-Петербург : Изд-во "Питер", 1999. – 816 с.
11. Варкута С. А. Планирование на предприятии / С. А. Варкута, Ю. Н. Егоров. – Москва : ИНФРА-М, 2001. – 176 с.
12. Василенко В. О. Виробничий "операційний менеджмент" : навч. посіб. / В. О. Василенко, Т. І. Ткаченко. – 2-ге вид., виправл. і доп. ; за ред. В. О. Василенка. – Київ : Центр навчальної літератури, 2005. – 532 с.
13. Василенко В. А. Операционное и ситуационное управление в системе менеджмента : учеб. пособ. / В. А. Василенко, И. Е. Мельник. – Москва : МГИУ, 2002. – 530 с.
14. Иванова В. Й. Операційний менеджмент у системі управління організацією навчальної дисципліни "Операційний менеджмент" : навч. посіб. Ч. 2 / В. Й. Иванова, О. М. Тімонін, К. В. Ларіна. – Харків : Вид. ХНЕУ, 2011. – 160 с.
15. Козловский В. А. Производственный и операционный менеджмент : учебник / В. А. Козловский, Т. В. Маркина, В. М. Макаров. – Санкт-Петербург : Специальная литература, 1998. – 368 с.
16. Курочкин А. С. Операционный менеджмент : учеб. пособ. / А. С. Курочкин. – Киев : МАУП, 2000. – 114 с.
17. Макаренко М. В. Производственный менеджмент : учеб. пособ. для вузов М. В. Макаренко, О. М. Махалина. – Москва : ПРИОР, 1998. – 384 с.
18. Новицкий И. И. Организация производства на предприятиях : учеб.-метод. пособие / И. И. Новицкий. – Москва : Финансы и статистика, 2003. – 396 с.
19. Организация, планирование и управление машиностроительным производством / под общ. ред. Б. Н. Родионова. – Москва : Машиностроение, 1989. – 328 с.
20. Парахина В. Н. Стратегический менеджмент : учебник / В. Н. Парахина, Л. С. Максименко, С. В. Панасенко. – Москва : КНОРУС, 2005. – 496 с.
21. Плоткін Я. Д. Виробничий менеджмент / Я. Д. Плоткін, І. Н. Пащенко. – Львів : ВЦ "ІТЕЛЕКТ+", 1999. – 140 с.
22. Практикум з операційного менеджменту : навч. посіб. / уклад. В. Й. Иванова. – 2-ге вид., переробл. і доп. – Харків : ВД "ІНЖЕК", 2009. – 72 с.

23. Соснін О. С. Виробничий і операційний менеджмент : навч. посіб. / О. С. Соснін, В. В. Казарцев. – Київ : Вид. Європ. ун-ту, 2002. – 148 с.
24. Соколицын С. А. Организация и оперативное управление машиностроительным производством / С. А. Соколицын, Б. И. Кузин. – Львов : Машиностроение, 1988. – 528 с.
25. Школа І. М. Операційний менеджмент : практикум / І. М. Школа, О. В. Михайлівська. – Чернівці : Книги – XXI, 2004. – 376 с.
26. Шегда А. В. Менеджмент : навч. посіб. / А. В. Шегда. – Київ : Знання, 2005. – 687 с.
27. Яременко О. Л. Операционный менеджмент : учебник / О. Л. Яременко, А. М. Сумец. – Харьков : ФОЛІО, 2002. – 213 с.
28. Hanna M. D. Integrated operations management. Adding value for customers M. D. Hanna, W. R. Newman. – 1st. edition. – New Jersey : Prentice Hall, 2001. – 753 p.
29. Heizer J. Principles of operations management / J. Heizer, B. Render. – 4th edition. – New Jersey : Prentice Hall, 2001. – 716 p.



# Contents

Introduction.....	3
1. Qualification requirements for students.....	4
2. Independent work of students.....	5
3. Guidelines for carrying out independent work.....	8
4. Questions for self-assessment.....	15
5. Tests for self-assessment.....	17
6. Recommended reading.....	22
Main.....	22
Additional.....	22

НАВЧАЛЬНЕ ВИДАННЯ

# ОПЕРАЦІЙНИЙ МЕНЕДЖМЕНТ

**Методичні рекомендації  
до самостійної роботи студентів  
спеціальності 073 "Менеджмент"  
першого (бакалаврського) рівня**

**(англ. мовою)**

*Самостійне електронне текстове мережеве видання*

Укладач **Сігасва** Тетяна Євгеніївна

Відповідальний за видання *О. М. Ястремська*

Редактор *З. В. Зобова*

Коректор *З. В. Зобова*

Подано план самостійної роботи з навчальної дисципліни, практичні завдання та методичні рекомендації до їх виконання, а також запитання для закріплення знань.

Рекомендовано для студентів спеціальності 073 "Менеджмент" першого (бакалаврського) рівня.

План 2017 р. Поз. № 257 ЕВ. Обсяг 26 с.

---

Видавець і виготовлювач – ХНЕУ ім. С. Кузнеця, 61166, м. Харків, просп. Науки, 9-А

---

*Свідоцтво про внесення суб'єкта видавничої справи до Державного реєстру  
ДК № 4853 від 20.02.2015 р.*