

UNIVERSITY OF ECONOMICS - VARNA
FACULTY OF „ECONOMICS“
DEPARTMENT „INDUSTRIAL BUSINESS“

ACCEPTED BY:

Rector:

(Prof. Dr. Plamen Iliev)

SYLLABUS

SUBJECT: “OPERATIONS MANAGEMENT”;

DEGREE PROGRAMME: "Business and management"; BACHELOR`S DEGREE

YEAR OF STUDY: 3; SEMESTER: 5;

TOTAL STUDENT WORKLOAD: 240 h.; incl. curricular 75 h.

CREDITS: 8

DISTRIBUTION OF WORKLOAD ACCORDING TO THE CURRICULUM

<i>TYPE OF STUDY HOURS</i>	WORKLOAD, h.	TEACHING HOURS PER WEEK, h
CURRICULAR: incl. <ul style="list-style-type: none">• LECTURES• SEMINARS (lab. exercises)	45 30	3 2
EXTRACURRICULAR	165	-

Prepared by:

1.
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2.
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I. ANNOTATION

Operations management has been a key element in the improvement in productivity in business around the world. Creating a competitive advantage through operations requires an understanding of how the operations function contributes to productivity growth.

The aim of this course is to provide a clear, well structured and interesting treatment of operations management as it applies to a variety of businesses and organizations. The course provides both a logical path through the activities of operations management and an understanding of their strategic context.

More specifically, after the completion of the course the students should be able to:

- *determine how best to design, supply and run the processes;*
- *understand how to set the strategic direction of a company from an operations standpoint;*
- *decide what technology should be used taking into account the specifics of the demand;*
- *explain how the decisions for facilities allocation are being taken;*
- *manage a facility that makes products or provides services.*

The Operations management course is based on the knowledge given in the courses of "Management theory" and "Marketing" and interferes with the courses "Business planning" and "Human resources management". The acquired knowledge in the operations field forms an excellent foundation for the subjects "Business logistics", "Quality management" and "Investments".

II. THEMATIC CONTENT

No. по ред	TITLE OF UNIT AND SUBTOPICS	NUMBER OF HOURS		
		L	S	L.E.
UNIT 1. OPERATIONS MANAGEMENT– NATURE AND PRINCIPLES		3	2	
1.1	The nature of operation management			
1.2	The activities of operations management			
1.3.	The model of operations management			
UNIT 2. THE STRATEGIC ROLE AND OBJECTIVES OF OPERATIONS		2	2	
2.1	The role of the operations function			
2.2	Operations performance objectives			
2.3.	The polar representation of performance objectives			
UNIT 3. OPERATIONS STRATEGY		4	2	
3.1.	The process of operations strategy			
3.2.	The market requirements perspective			
3.3.	The operations resources perspective			
UNIT 4. PROCESS DESIGN		4	4	
4.1.	The design activity			
4.2.	Process types – the volume–variety effect on process design			
4.3.	Detailed process design			
4.4.	The effects of process variability			
UNIT 5. THE DESIGN OF PRODUCTS AND SERVICES		4	2	
5.1.	Concept generation and screening			
5.2.	Preliminary design			
5.3.	Design evaluation and improvement			
5.4.	Prototyping and final design			

UNIT 6. SUPPLY NETWORK DESIGN		3	2	
6.1.	The supply network perspective			
6.2.	Configuring the supply network			
6.3.	The location of capacity			
6.4.	Long-term capacity management			
UNIT 7. LAYOUT AND FLOW		3	2	
7.1.	What is layout? The basic layout types			
7.2.	Detailed design of the layout			
UNIT 8. JOB DESIGN AND WORK ORGANIZATION		3	2	
8.1.	What is job design?			
8.2.	Designing the human interface – ergonomic workplace design			
8.3.	Designing task allocation – the division of labour			
8.4.	Designing job methods – scientific management			
8.5.	Work measurement in job design			
8.6.	Designing for job commitment – behavioural approaches to job design			
UNIT 9. PLANNING AND CONTROL		3	4	
9.1.	The nature of supply and demand			
9.2.	Planning and control activities			
9.3.	Capacity planning and control			
9.4.	Choosing a capacity planning and control approach			
9.5.	Capacity planning as a queuing problem			
UNIT 10. INVENTORY PLANNING AND CONTROL		3	2	
10.1.	What is inventory? Types of inventory			
10.2.	The volume decision – how much to order			
10.3.	The timing decision – when to place an order			
10.4.	Inventory analysis and control systems			
UNIT 11. ENTERPRISE RESOURCE PLANNING (ERP).		6	2	
11.1.	Materials requirements planning (MRP) . MRP calculations			
11.2.	Manufacturing resource planning (MRP II)			
11.3.	Enterprise resource planning (ERP)			
UNIT 12. LEAN OPERATIONS AND JIT		4	2	
12.1.	What is lean and just-in-time?			
12.2.	The lean philosophy			
12.3.	JIT techniques			
12.4.	JIT planning and control			
12.5.	JIT in service operations			
UNIT 13. OPERATIONS IMPROVEMENT		3	2	
13.1.	Measuring and improving performance			
13.2.	Improvement priorities			
13.3.	Approaches to improvement			
13.4.	The techniques of improvement			
Total:		45	30	

III. FORMS OF CONTROL:

No. by row	TYPE AND FORM OF CONTROL	№	extra-curricular, h.
1.	Midterm control		
1.1.	Midterm examination - test	2	40
1.2.	Case studies	5	50
1.3.	Individual work over specified topic	1	35
Total midterm control:		8	125
2.	Final term control		
2.1.	Examination (test)	1	40
Total final term control:		1	40
Total for all types of control:		9	165

IV. LITERATURE

REQUIRED (BASIC) LITERATURE:

1. Slack, N., Chambers, S., Jonston, R. Operations Management. Pearson Education, 5th ed., 2007.
2. Slack, N., Brandon-Jones, A. Quantitative analysis in operations management. Pearson Education, 2008
3. Heizer, J., Render, B. Operations management. Pearson education Inc, 2011
4. Chase, R., Aquilano, N., and Jacobs, F. Production and Operations Management. Irwin McGraw-Hill, 2007.

RECOMMENDED (ADDITIONAL) LITERATURE:

1. Ronen, B. Pass, S. Focused operations management: achieving more with existing resources. John Wiley & Sons Inc, 2008.
2. Hill, A. The encyclopedia of operations management. Pearson education Inc, 2012.
3. Kumar, S. Suresh, N. Production and operations management. New age international Ltd, 2008