

Course title	Operations Management
Course code	
Type of course	Optional
Level of course	Postgraduate
Year of study	First (1 st)
Semester	Second (2 nd)
ECTS credits	5
Name of lecturer(s)	Associate Professor, Andreas Nearchou
Aim of the course	<p>The aim of the course is to present to the students the most recent methods and techniques necessary for effective production and delivery of goods and services. In particular, students will be introduced into the following decision areas:</p> <p>Operations and productivity. Project management. Product design. Quality management. Process selection and design. Process reengineering. Operations technology. Forecasting. Capacity planning. Location strategies. Layout strategies.</p>
Learning outcomes	<p>At the end of this course the student should be able to:</p> <ol style="list-style-type: none"> 1. To define the terms <i>production</i>, <i>production system</i>, <i>productivity</i>, and compute productivity. 2. To describe the stages of product life cycle and distinguish the critical role of technology in the product design process. 3. To apply the basic methods for planning, scheduling and controlling large projects. 4. To define the concept of quality and its importance for productivity improvement. 5. To distinguish the various types of production process in both manufacturing and services industry. 6. To realize the importance of location selection in business, and apply basic well-known techniques for solving location problems. 7. To realize the importance of layout design, and apply basic well-known techniques for solving layout design problems. 8. To define capacity and apply decision-trees methods for solving capacity problems. 9. To understand the strategic importance of

	demand forecasting and apply basic well-known forecasting models.
Competences	<p>At the end of the course the student will have further developed the following skills/competences:</p> <ol style="list-style-type: none"> 1. Apply the methodology of <i>House of Quality</i> methodology for product design. 2. Apply the basic methods for planning, scheduling, and controlling projects. 3. Use modern tools and techniques for process analysis. 4. Estimate forecasting using basic simple techniques. 5. Solve location problems using simple well-known heuristic methods 6. Solve layout design problems using simple heuristics.
Prerequisites	There are no prerequisite courses. It is, however, recommended that students have at least a basic knowledge of Differential and Integral Calculus as well as Statistics.
Course contents	<ol style="list-style-type: none"> 1. Operations and productivity. 2. Operations Strategy in a Global Environment 3. Project management. 4. Design of goods and services. 5. Managing quality 6. Process analysis 7. Process reengineering. 8. Production technology. 9. Forecasting. 10. Capacity planning. 11. Location strategies 12. Layout design strategies.
Recommended reading	<ol style="list-style-type: none"> 1. Heizer J. and Render B., Principles of Operations Management, 9th Edition, Prentice Hall, 2013. 2. Chase, R. B., Jacobs, F. R., & Aquilano, N. J. Operations management for competitive advantage (10th edition). Boston: McGraw-Hill/Irwin, 2004. 3. Russel R. and B. Taylor, Operations Management, Third Edition, Prentice Hall, 2000. 4. Anupindi R., S. Chopra, S.D. Deshmukh Managing Business Process Flow, First Edition, Prentice Hallm, 1999. 5. Stevenson W.J., Production/Operations Management , Sixth Edition, Irwin/McGraw-Hill, 1999.

Teaching and learning methods	Lectures – Tutorials
Assessment and grading methods	The grade is calculated as the weighted average of the final written exam (80%) and an assignment (20%). Greek grading scale: 1 to 10. Minimum passing grade: 5
Language of instruction	Greek.