

a) General			
<i>School</i>	ENGINEERING		
<i>Academic unit</i>	MECHANICAL ENGINEERING		
<i>Level of studies</i>	Undergraduate		
<i>Course code</i>	MM907E03	<i>Semester</i>	7
<i>Course title</i>	<b>Production and maintenance organisation</b>		
<i>Independent teaching activities</i>		<i>Weekly teaching hours</i>	<i>ECTS</i>
Lectures		2	4.0
Laboratory exercises		2	
<i>Course type</i>	Knowledge deepening/consolidation		
<i>Course category</i>	Compulsory Elective for Direction 1/2		
<i>Prerequisite courses</i>	-		
<i>Language of instruction and examinations</i>	Greek / English		
<i>Is the course offered to Erasmus students</i>	Yes		
<i>Course website (url)</i>	<a href="https://ops.mech.uniwa.gr/">https://ops.mech.uniwa.gr/</a>		
b) Learning outcomes and general competences			
b1. Learning outcomes			
Upon successful completion of this course, the student will be able to:			
<ul style="list-style-type: none"> <li>- Gain an understanding of the principles relevant to production planning, organization and operation of manufacturing firms</li> <li>- Understand how Manufacturing Resources Planning (MRP II) systems, Enterprise Resources Planning (ERP) systems and Just-In-Time (JIT) systems, are used in managing operations</li> <li>- Develop skills necessary to effectively analyze and control Material and Stock Management</li> <li>- To increase the knowledge in the field of mechanical installation maintenance</li> </ul>			
b2. General competences			
<ul style="list-style-type: none"> <li>- Decision-making</li> <li>- Working independently</li> <li>- Team work</li> <li>- Working in an international environment</li> <li>- Project planning and management</li> </ul>			
c) Syllabus			
<p>The objectives of the production and maintenance organisation is to provide to the students the necessary knowledge and experience in order to recognise the production management and planning problems as well as to be able to select and use the most appropriate methods and tools for the solution of production management problems, such as planning and control methods, inventory and stock control etc. as well as the most modern production planning and management systems such as ERPs. Concerning the maintenance management, the module includes the basic concepts of maintenance, the parameters affecting the maintenance cost identification, the concepts of preventive and predictive maintenance, the most widely applied maintenance management software tools.</p>			
d) Teaching and learning methods - Evaluation			
Delivery	Face-to-face, Workshops, Lab exercises, Software LABs		
Use of information and communications	<ul style="list-style-type: none"> <li>- MS Teams/Moodle</li> <li>- Open courses</li> </ul>		

technology		
Teaching methods	<i>Activity</i>	<i>Semester workload</i>
	Lectures	26
	Tutorials	13
	Laboratory exercises	26
	Computational exercises	13
	Individual work	26
	Course total	130
Student performance evaluation	Written examination, case studies and teamwork assignment	
e) Suggested bibliography		
<ol style="list-style-type: none"> <li>1. Roberta S. Russell [Τατσόπουλος Ηλίας], 2018, "PRODUCTION ORGANIZATION and SUPPLY MANAGEMENT [ΟΡΓΑΝΩΣΗ ΠΑΡΑΓΩΓΗΣ και ΔΙΟΙΚΗΣΗ ΕΦΟΔΙΑΣΜΟΥ]", ISBN: 9604185578, Ed. Tziola, Greece</li> <li>2. Kiener, Maier et al., [Σακκά Ιωάννα], 2011, "PRODUCTION MANAGEMENT [ΔΙΟΙΚΗΣΗ ΠΑΡΑΓΩΓΗΣ]", ISBN: 9789607860880, Ed. Propompos, Greece</li> <li>3. Slack Nigel, Chambers Stuart, Johnston Robert [Αδαμίδης Εμμανουήλ], 2010, "PRODUCT AND SERVICES PRODUCTION MANAGEMENT [ΔΙΟΙΚΗΣΗ ΠΑΡΑΓΩΓΗΣ ΠΡΟΪΟΝΤΩΝ ΚΑΙ ΥΠΗΡΕΣΙΩΝ]", ISBN: 9789604613151, Ed. Klidarithmos, Greece</li> <li>4. Gaither Norman, 1995, "Production and Operations Management" ISBN: 0534510000, Ed. Duxbury Press</li> <li>5. Pappis Costas, 2008, "PRODUCTION MANAGEMENT - DESIGN of PRODUCTION SYSTEMS [ΔΙΟΙΚΗΣΗ ΠΑΡΑΓΩΓΗΣ- Ο ΣΧΕΔΙΑΣΜΟΣ ΠΑΡΑΓΩΓΙΚΩΝ ΣΥΣΤΗΜΑΤΩΝ]" 2<sup>nd</sup> Edition/ 2<sup>η</sup> Έκδοση, ISBN: 9789603517467, Ed. Stamoulis, Greece</li> </ol>		