



# UNIVERSITY OF NIŠ

**Course Unit Descriptor**

**Faculty**

Faculty of Mechanical Engineering

## GENERAL INFORMATION

Study Program	<b>Engineering Management</b>		
Study Module (if applicable)	-		
Course Title	Production and service systems		
Level of Study	<input checked="" type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input type="checkbox"/> Doctoral
Type of Course	<input checked="" type="checkbox"/> Obligatory	<input type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	8		
Name of Lecturer/Lecturers	Rado M. Maksimovic		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input checked="" type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input type="checkbox"/> Laboratory work	<input type="checkbox"/> Project work	<input checked="" type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

## Purpose and Overview (max. 5 sentences)

The course oriented to systematic research and study of complete transformaiion process (from inpuut resources to products or services) in varios types of production or service systems. The goal of course are student's acquisition for development and design of production or service production structures, and defiiing of it's characteristics. Final student's competitions after successfully completion of this course are: the knowlwege and ability for use of for desing of material, energy and information flows in the production or service systems and desing of it's space schedule (lay-out).

## Syllabus (brief outline and summary of topics, max. 10 sentences)

Lectures: (1) The basic elements of production and business systems; (2) The conditions of production and business systems development; (3) Prodct/service and production/service program; (4) Differences between products and services; (5) Production/service work proces and capacity of sustem's elements; (6) The aproches for system's structure designig; (7) General model of production/service flows; (8) Balancing of production/service flows; (9) Assessment of production/service system elements; (10) Design of production/service system lay-out; (11) Energy and infoirmation flows in production/service systems; (12) Production/service system location; (13) Simulation of production/service systems work. Group tutorials are include exercises - solving of various problems related on prodct/service and production/service program, production/service flows and design of production/service system lay-out. Seminar include an interactive analysis and elaboration of real case of production/service system. Seminar based on team work.

## Language of Instruction

- Serbian (complete course)       English (complete course)       Other \_\_\_\_\_ (complete course)
- Serbian with English mentoring       Serbian with other mentoring \_\_\_\_\_

<b>Assessment Methods and Criteria</b>			
<b>Pre exam Duties</b>	<b>Points</b>	<b>Final Exam</b>	<b>Points</b>
<b>Activity During Lectures</b>	<b>10</b>	<b>Written Examination</b>	<b>60</b>
<b>Practical Teaching</b>	<b>30</b>	<b>Oral Examination</b>	<b>-</b>
<b>Teaching Colloquia (not obligatory)</b>	<b>(60)</b>	<b>Overall Sum</b>	<b>100</b>
<b>*Final examination mark is formed in accordance with the Institutional documents</b>			