UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION			
Study Program	Engineering management		
Study Module (if applicable)	Transport and logistics management		
Course Title	Urban transportation and logistics		
Level of Study	☐ Bachelor	☒ Master's	☐ Doctoral
Type of Course	☒ Obligatory	☐ Elective	
Semester	☐ Autumn	☒ Spring	
Year of Study	I		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Dragoslav B. Janošević		
Teaching Mode	☒ Lectures ☒ Laboratory work ☐ Distance learning	☐ Group tutorials ☒ Project work ☐ Blended learning	☐ Individual tutorials ☒ Seminar ☐ Other

Purpose and Overview (max. 5 sentences)

Analysis of the functions, structure and methods of planning of transport and logistics in urban areas. After completion of the subject the students are able to solve real problem of optimal planning and optimisation of transport and logistics problems in urban areas.

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

1) Basics of urban planning of the city. The structure functions of urban areas. Examples of functions and solutions of urban metropolises; 2) CITY transport and logistics: Definition of the functions of transport and logistics, materials, goods and information in urban areas. Strategies and concepts of urban transport and logistics; 3) Transport and logistics flows: Generators transport and Logistic flows in urban areas. Structure of transport and logistics flows. Logistics centres and terminals. Urban supply chains; 4) The urban location problems: Elements of urban transport networks. These method algorithms for solving location problems. Optimization of urban transport flows. Examples CITY transport and logistics world cities; 5) Urban environmentally (EKO) transport and logistics: Principles of Sustainable Development - Agenda 21 Definition and classification of waste and recyclables. Municipal waste - morphological composition and physical characteristics; 6) Waste management: principles, functions and management systems of waste. Waste collection. Transportation equipment and vehicles - functional parametric analysis and exploitation properties. Transfer stations. Tratman waste. Waste disposal; 7) Designing optimal route: Analysis of influencing factors and constraints in the optimization of routes. Methods and algorithms of designing optimal routes. Multicriteria optimization methods routes. Ecological criteria for evaluation of routes based on: characteristic numbers, the eco balance and consumption of energy and materials. Examples EKO transport and logistics world's great cities.

Language of Instruction

☒Serbian (complete course) ☐ English (complete course) ☐ Other _____ (complete course)

☒ Serbian with English mentoring ☐Serbian with other mentoring _____			
Assessment Methods and Criteria			
Pre exam Duties	**Points**	**Final Exam**	**Points**
Activity During Lectures	**5**	**Written Examination**	**50**
Practical Teaching	**10**	**Oral Examination**	**Max. 35 (depending on Teaching Colloquia)**
Teaching Colloquia	**35**	**Overall Sum**	**100**
***Final examination mark is formed in accordance with the Institutional documents**			