Study program: Road Traffic Engineering

Course title: Engineering and Vehicle Maintenance

Professor/assistant: Miodrag Grubiša

Type of course: Elective

ECTS credits: 6

Prerequisites: none

Aims of the course:

Acquiring knowledge and skills in the field of maintenance engineering of technical systems, especially vehicles, and understanding the role and importance of maintenance. Mastering methods, documentation and technologies in vehicle maintenance.

Learning outcomes:

The student, independently and in a team, designs technologies for vehicle maintenance, selects the methods, and organizes and creates documentation for vehicle maintenance.

Syllabus:

Theoretical part

Exploitable and technical characteristics of a vehicle; Fundamentals of maintenance of technical systems; Characteristics and the state of technical systems; Reliability and effectiveness; Division of vehicle maintenance methods; Corrective and preventive maintenances of vehicles; Technical diagnostics of vehicles; Identifying the cause of system failure; Organization and logistics of the vehicle maintenance system; Quality and safety in maintenance.

Practical part:

The student independently develops programs related to maintenance of technical systems. Maintenance of technical systems, practical application on vehicles. Visiting companies and getting acquainted with the appropriate vehicle maintenance systems and methods.

Literature:

1. Todorović P., Osnovi održavanja, Fakultet inženjerskih nauka, Kragujevac, 2016.
2. Jeremić B., Terotehnologija: tehnologija održavanja tehničkih sistema, Eskod, 1992.
3. Papić Lj., Održavanje i pouzdanost tehničkih sistema, DQM, Prijevor, 2007.
4. B. Krstić: Eksploatacija motornih vozila i motora, Mašinski fakultet, Kragujevac, 1997, str.274.
5. S. Bunčić: Tehnička eksploatacija motornih vozila, Saobraćajni fakultet, Beograd, 2000.
6. V. Papić: Uvod u tehnologiju održavanja transportnih sredstava, Saobraćajni fakultet, Beograd, 1995.

Total number of active classes: 75	**Lectures:** 45	**Practical classes:** 30

Teaching methods:

Lectures. Auditory exercises. Individual consultations or consultations in small groups.

Grading system (maximum 100 points)

grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.

Pre-exam obligations:	**Points:**	**Final exam:**	**Points:**
Activity during theoretical lectures	max 5	Oral exam	50
Practical training	max 5		
Written test(s)	max 20		
Term papers/essays	max 20		
Minimum requirement for the final exam	30		