

Faculty of Mechanical Engineering / ROAD TRAFFIC / OPERATING AND TECHNOLOGICAL PROPERTIES OF VEHICLE

Course:	OPERATING AND TECHNOLOGICAL PROPERTIES OF VEHICLE			
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
12259	Mandatory	1	6	2+2+0
Programs	ROAD TRAFFIC			
Prerequisites	None			
Aims	The aim of studying the subject is to acquire the knowledge necessary for understanding, managing and analysing the process of exploitation of road vehicles			
Learning outcomes	After passing the exam, the student will be able to manage the exploitation of the vehicle, will be familiar with the exploitation and technical properties of new vehicles and with the change of properties as a result of the use of the vehicle, will be able to determine the moment of acquisition and write-off of the vehicle, will be able to take care of the requirements for the vehicle as a result of use in the conditions necessary for the economical functioning of the fleet, will be informed about the latest regulations that vehicles must meet in order to be included in public transport in relation to environmental conditions and in relation to other technical norms			
Lecturer / Teaching assistant	Ph.D Sreten Simović			
Methodology	Lectures and auditory exercises; consultations through a combined/digital approach to learning based on the synergy between educational technology and real/virtual environment (video case studies, critical analysis of presented material, audio-visual support, etc), individual projects, individual and team presentations, consultations			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Introduction to the subject and method of teaching; Introduction to the subject; Historical development of road vehicles and their components; Classification, categorization and identification of vehicles			
I week exercises	Introduction to the subject and method of teaching; Introduction to the subject; Historical development of road vehicles and their components; Classification, categorization and identification of vehicles			
II week lectures	Requirements placed on vehicles; Regulations and legislation in the field of road vehicles			
II week exercises	Requirements placed on vehicles; Regulations and legislation in the field of road vehicles			
III week lectures	Operational and technological characteristics of vehicles; Seminar paper			
III week exercises	Operational and technological characteristics of vehicles; Seminar paper			
IV week lectures	Operational and technological characteristics of vehicles			
IV week exercises	Operational and technological characteristics of vehicles			
V week lectures	Significant exploitation factors that affect individual vehicle properties and measures to mitigate these impacts			
V week exercises	Significant exploitation factors that affect individual vehicle properties and measures to mitigate these impacts			
VI week lectures	Goals and tasks of technical exploitation of vehicles			
VI week exercises	Goals and tasks of technical exploitation of vehicles			
VII week lectures	Theoretical and methodological bases of technical exploitation of vehicles			
VII week exercises	Theoretical and methodological bases of technical exploitation of vehicles			
VIII week lectures	Colloquium I			
VIII week exercises	Colloquium I			
IX week lectures	Vehicle life cycle, life cycle costs and vehicle condition			
IX week exercises	Vehicle life cycle, life cycle costs and vehicle condition			
X week lectures	Determining the useful life of vehicles according to technical and economic criteria			
X week exercises	Determining the useful life of vehicles according to technical and economic criteria			

XI week lectures	Technical exploitation of the transport system subsystem					
XI week exercises	Technical exploitation of the transport system subsystem					
XII week lectures	Resources of technical exploitation and management of technical exploitation					
XII week exercises	Resources of technical exploitation and management of technical exploitation					
XIII week lectures	Resource quantification models					
XIII week exercises	Resource quantification models					
XIV week lectures	Renewal of the vehicle fleet and development perspectives					
XIV week exercises	Renewal of the vehicle fleet and development perspectives					
XV week lectures	Colloquium II					
XV week exercises	Colloquium II					
Student workload						
Per week			Per semester			
6 credits x 40/30=8 hours and 0 minuts 2 sat(a) theoretical classes 0 sat(a) practical classes 2 excercises 4 hour(s) i 0 minuts of independent work, including consultations			Classes and final exam: 8 hour(s) i 0 minuts x 16 =128 hour(s) i 0 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 8 hour(s) i 0 minuts x 2 =16 hour(s) i 0 minuts Total workload for the subject: 6 x 30=180 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 36 hour(s) i 0 minuts Workload structure: 128 hour(s) i 0 minuts (cources), 16 hour(s) i 0 minuts (preparation), 36 hour(s) i 0 minuts (additional work)			
Student obligations			Attendance of lectures and exercises (live or online)			
Consultations			Consultations in the office and online (every working day)			
Literature			Bunčić S. D.: Tehnička eksploatacija motornih vozila I, Faculty of Transport and Traffic Engineering, Belgrade, 2001. Krstić B.: Tehnička eksploatacija motornih vozila i motora, Faculty of Mechanical Engineering, Kragujevac, 2009. Lowe D.: A transport operator's and manager's handbook, Kogan Page, London, 2006.			
Examination methods			Class attendance: 5 points; I colloquium: 30 points; II colloquium: 30 points; Final test: 35 points; A passing grade is obtained if at least 51 points are accumulated cumulatively			
Special remarks						
Comment						
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points