

Study program: Industrial Engineering – Mechanical Engineering			
Course title: Motor Vehicles			
Professor/assistant: Đorđević Đ. Miloslav, Aleksandrović B. Branislav			
Type of course: Elective			
ECTS credits: 6			
Prerequisites: none			
Aims of the course: Acquiring knowledge about road motor vehicles (types, dynamic and motion characteristics; construction, exploitation and safety characteristics; operation of the basic system) for the purpose of analyzing vehicle's characteristics, solving tasks regarding vehicle safety, performing laboratory and road tests and organizing transport.			
Learning outcomes: The student understands the operation of a modern vehicle and solves engineering problems regarding motion, exploitation and safety of road motor vehicles.			
Syllabus: <i>Theoretical part:</i> Historical development of road motor vehicles; Definitions and types of vehicles; Wheel rolling; Distribution of weight and the position of the center of mass; Forces of resistance during vehicle's movement; Dynamic surface resistance; Traction dynamics of a vehicle – characteristics; Braking system; Stability of the vehicle; Steering; Vehicle safety. <i>Practical part:</i> Auditory exercises - solving practical problems in the field of the motion and resistance, dynamic reactions, weight and center of mass distribution; writing term papers and presenting the results.			
Literature: 1. Đorđević M., Drumska motorna vozila, Visoka tehnička škola strukovnih studija, Kragujevac, 2011, nastavna publikacija-skripta; 2. Simić D. Motorna vozila, Naučna knjiga, Beograd, 1988 3. Janićijević N., Janković D., Todorović J.: Konstrukcija motornih vozila, Mašinski fakultet, Beograd, 2000.			
Total number of active classes: 60		Lectures: 30	Practical classes: 30
Teaching methods: Lectures - interactive approach; Practice - task solving, preparation of term papers, presentations, discussions, solving specific problems, consultations.			
Grading system (maximum 100 points) grading scale from 5 to 10: below 51 points – student fails the exam, 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 lectures	max 5	Oral exam	50
Practical training	max 5		
Written test	max 20		
Term paper	max 20		
Minimum for the final exam	30		