

<b>Study program / course: Mechanical Engineering</b>				
<b>Type and level of study: Master academic studies</b>				
<b>Course: Alternative propulsion systems</b>				
<b>Lecturers: Radivoje B. Pešić, Dragoljub R. Radonjić</b>				
<b>Status of course: Elective, joint for modules M<sub>3</sub> and M<sub>8</sub>, III term</b>				
<b>Number of ECTS: 6</b>				
<b>Precondition: none</b>				
<b>The objective of course</b> The objective of the course is to introduce the students with the area of alternative energy sources and in the area of vehicles using alternative energy sources and corresponding propulsion systems for their drive.				
<b>The outcome of course</b> After the course is finished, the student will be able to recognize alternative propulsive materials and alternative propulsion systems and to research and develop characteristic elements for design and exploitation of alternative propulsion systems.				
<b>Syllabus</b> Historical development, reasons and perspectives of using the alternative propulsion materials and systems. Alternative energy sources. Hybrid drive. Accumulators of mechanical energy. Dynamic characteristics of alternative propulsion units. Reliability of alternative propulsion units. <b>Practical Studies:</b> Independent analysis of application of alternative propulsion materials and systems. Experimental research of alternative propulsion materials and systems and doing of seminar paper.				
<b>Recommended reading</b> S. Veinović, R. Pešić: "Fuels and lubricants for motor vehicles", (in Serbian), Banja Luka, Kragujevac, 2000 R. Pešić, S. Petković, S. Veinović: "Motor vehicles – equipment", (in Serbian), Faculties of Mechanical Engineering from Banja Luka and Kragujevac, 2008 R. Pešić, D. Radonjić: Alternative propulsion system, (in Serbian), Script in preparation				
The number of hours of active teaching:				Other classes:
Theory: 3	Practical classes: 1.4	Other forms of teaching: 0.6	Research study: 0	1
<b>Methods of teaching</b> Teaching will be conducted through lectures, practical studies, visits to companies and doing two seminar papers.				
<b>Evaluation of knowledge</b>				
<b>Pre-final exam obligations</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>	
Activities during the classes:	<b>10</b>	Oral Examination	<b>40</b>	
Practical classes:	<b>20</b>			
Colloquiums(s) :				
Seminar(s) :	<b>15+15</b>			