

<b>Study program / course:</b> Mechanical Engineering				
<b>Type and level of study:</b> Master academic studies				
<b>Course:</b> Processes modeling within OTTO engines				
<b>Lecturers:</b> Radonjić R. Dragoljub, Radivoje B. Pešić				
<b>Status of course:</b> Obligatory for module M <sub>3</sub> , I semester				
<b>Number of ECTS:</b> 6				
<b>Precondition:</b> None				
<b>The objective of course</b> Education of students in the area of OTTO engines related to: modeling of real working cycles in OTTO engines, processes in intake-exhausting systems, driven and servicing characteristics.				
<b>The outcome of course</b> Students ability to define and to use mathematical models of processes within the OTTO engines, during the calculation phase and creation of new prototype as same as checking of existing engine characteristics.				
<b>Syllabus</b>				
<b>Theoretical study</b> Basis of dynamic processes mathematical modeling. Type of models. Setting of mathematical modeling of basic processes within OTTO engines. Model calibration and verification. Appliance of existing software packages for modeling and simulation processes within OTTO engines.				
<b>Practical classes include:</b> Forming and resolving of mathematical processes models within engines by means of computers. Students will be trained for basic research in the area of subject within the framework of study research.				
<b>Recommended reading</b>				
1. Radonjić D., Pešić R.: Thermodynamic calculation of IC Engines, Faculty of Mechanical Engineering in Kragujevac, 1996 (in Serbian)				
2. Jankov R.: Mathematical modeling flow-thermodynamic processes and load characteristics of diesel engine, I and II part, Scientific book, Belgrade 1984. (in Serbian)				
The number of hours of active teaching:				Other classes: 1
Theory: 2	Practical classes: 1.6	Other forms of teaching: 0.4	Research study: 0	
<b>Methods of teaching</b>				
<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:	5	written exam	-	
Practical classes:	10	verbal exam	30	
Colloquium(s) :	40			
Seminar(s) :	15			