

UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Thermodynamic Basics of IC Engines		
Level of Study	<input checked="" type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	III		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Mića Vukić		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input checked="" type="checkbox"/> Laboratory work	<input type="checkbox"/> Project work	<input checked="" type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

Introduce students to the thermodynamic cycle of IC engines and analysis of cycles, four and two stroke IC engines operating and characteristics, IC - systems, components, assemblies and performance parameters.

Syllabus (brief outline and summary of topics, max. 10 sentences)

1) IC engine types, concepts and constructions, 2) Thermodynamic cycles of IC engines and analysis of cycles, 3) Temperatures and pressures in specific cycles points 4) Operational parameters of the engine - the indicator and the effective parameters, 5) Cooling system, 6) Intake & Exhaust Systems, 7) Lubrication system, 8) Fuel injection systems, 9) Kinematics and dynamics of the motor mechanism, tangential forces diagram, flywheel, 10) Emissions.

Language of Instruction

Serbian (complete course) English (complete course) Other _____ (complete course)

Serbian with English mentoring Serbian with other mentoring _____

Assessment Methods and Criteria

Pre exam Duties	Points	Final Exam	Points
Activity During Lectures	10	Written Examination	max. 70 (depending on Teaching Colloquia)

Practical Teaching	20	Oral Examination	max. 35 (depending on Teaching Colloquia and Written Examination)
Teaching Colloquia	70	Overall Sum	100
*Final examination mark is formed in accordance with the Institutional documents			