

COURSE GUIDE – short form

Academic year 2014/2015

Course name ¹	Basics of Internal Combustion Engines (I)					Course code	309		
Course type ²	DS	Category ³	DI	Year of study	3	Semester	II	Number of credit points	6

Faculty	Mechanical Engineering	Number of teaching and learning hours ⁴						
Field	Automotive Engineering	Total	L	T	LB	P	IS	
Specialization	(ISPA)Propulsion System for Automotive	84	42		14	28		

Pre-requisites from the curriculum ⁵	Compulsory	Thermodynamic, Machine Design
	Recommended	Materials science

General objective ⁶	The main objective of the course is to provide information on the operation of the engines, component data and thermodynamic modeling of the processes taking place in the engine, functional parameters, economic parameters and functional characteristics, closely linked to the dynamic behaviour of the car.
Specific objectives ⁷	<ul style="list-style-type: none"> The general architecture of ICE Thermodynamic modeling of the processes taking place in the engines Functional parameters, economic parameters and functional characteristic Unconventional fuels to power engines and specific methods to reduce pollution ...
Course description ⁸	Classification of internal combustion engines, general thermodynamic cycle of internal combustion engines, analysis of Intake process,compression process, burning process, and exhaust, using indicated diagram, combustion models, the characteristic of ICE, structural characteristics of two and four stroke.

Assessment			Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester		7,11	10%
	Activity during tutorials/laboratory works/projects/practical work		1-14	30%
	Assignments		14	10%
Final assessment	Final assessment form ¹¹	EX	exam period	50%
	Examination procedures and conditions: 1. ; Question from cours, ; using laboratory facilities and IT; percent of the final grade - 50% 2. ; Question from cours; using laboratory facilities and IT; percent of the final grade - 50%			

Course organizer	Prof.dr.ing.Eugen GOLGOTIU	
Teaching assistants		

¹ Course name from the curriculum

² DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

³ DI – imposed, DO –optional, DL – facultative (from the curriculum)

⁴ Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)

⁵ According to 4.1 – Pre-requisites - from the Course guide – extended form

⁶ According to 7.1 from the Course guide – extended form

⁷ According to 7.2 from the Course guide – extended form

⁸ Short description of the course, according to point 8 from the Course guide – extended form

⁹ For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

¹⁰ A minimum grade might be imposed for some assessment stages

¹¹ Exam or colloquium