

COURSE GUIDE – short form

Academic year 2014-2015

Course name ¹		Turbomachinery				Course code		IM.410.DO.DS-1			
Course type ²		DS	Category ³	DO	Year of study	IV	Semester	7	Number of credit points	6	
Faculty		Of Mechanical Engineering				Number of teaching and learning hours ⁴					
Field		Mechanical Engineering				Total	L	T	LB	P	IS
Specialization		Mechanical Engineering				140	42	-	14	14	70
Pre-requisites from the curriculum ⁵		Compulsory		-							
		Recommended		-							
General objective ⁶		The discipline's main objective is to make students acquire a good knowledge about the main types of turbomachines and understanding their operating principles. Formation of basic skills (cognitive and experimental) about the functioning of turbomachinery.									
Specific objectives ⁷		1) knowledge about the main types of turbomachinery: turbines and dynamic compressors, and understanding their principles of operation; 2) training of basic skills (cognitive and experimental) on the functioning of turbine engines and of dynamic compressors; 3) provide students with a thorough knowledge about: - the constructive principles and mechanical and thermal schemes of the main types of turbines and dynamic compressors; - processes that occur in turbomachinery; - knowledge of the main characteristics of turbomachinery; 4) laboratory classes aim to acquire experimental knowledge of some aspects of the operation of turbines, including the measurement of some parameters; 5) the project classes aim to learn about the methodology of designing a steam turbine.									
Course description ⁸		- turbomachinery, steam turbine, nozzle, blades, expansion, nozzle and blade losses - dynamic compressor, centrifugal stage, axial stage, percentage of reaction - thermodynamic cycle, suction, compression, discharge, efficiency, work, speed triangle									
Assessment						Schedule ⁹		Percentage of the final grade (minimum grade) ¹⁰			
Continuous assessment	Class tests along the semester					-		- %			
	Activity during tutorials/laboratory works/projects/practical work					S14		50 % (5)			
	Assignments					-		- %			
Final assessment	Final assessment form ¹¹			Exam		exam period		50 % (5)			
	Examination procedures and conditions: 1. subject nr. 1; tasks: to solve; working conditions: T; percent 40 %; 2. subject nr. 2; tasks: to solve; working conditions: T; percent 30 %; 3. subject nr. 3; tasks: to solve; working conditions: T; percent 30 %										
Course organizer		ș.I.dr.ing. Vlad Mario HOMUTESCU									
Teaching assistants		ș.I.dr.ing. Vlad Mario HOMUTESCU									

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