

COURSE GUIDE – short form

Academic year 2014-2015

Course name ¹	Construction and calculation of robots					Course code		RBT.414. DO.DS-1	
Course type ²	DO. DS	Category ³	DO	Year of study	IV	Semester	8	Number of credit points	5

Faculty	Mechanical Engineering	Number of teaching and learning hours ⁴						
Field	Mechatronics and robotics	Total	L	T	LB	P	IS	
Specialization	Robotics	70	42	-	-	28	14	

Pre-requisites from the curriculum ⁵	Compulsory	Robotics
	Recommended	

General objective ⁶	Realizing a higher preparation regarding aspects of the design of serial and parallel industrial robots.
Specific objectives ⁷	Explanation of working and design stages of mechanisms, machine parts and mechanical parts entering in the structure of various robotic systems. Solving some design themes (of reduced complexity) of a robotic system.
Course description ⁸	Fundaments in engineering design. Basic standards. Design principles of robots. Classification of robots. Driving robots. Technical requirements and design parameters. Portal industrial robots. Design of mechanisms for orientation, positioning and of pretension devices. Constructive aspects of parallel robots.

Assessment			Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester			%
	Activity during projects. It is assessed according to frequency and pertinence of oral interventions, the quality of performed stages. Discussions and specific themes solving at each project class.		weeks 1 – 14	40%
	Assignments			%
Final assessment	Final assessment form ¹¹	Exam	exam period	60%
	Examination procedures and conditions: Written work-2 hours Tasks: theme development and case study. The subjects are coverin the main chapters of the course. It is followed the way of knowledge gathering and interpretation of some schemes and verification of creative capacity.			

Course organizer	s.l.dr.ing. Merticaru Eugen	
Teaching assistants	s.l.dr.ing. Merticaru Eugen	

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