

COURSE GUIDE – short form

Academic year 2014-2015

Course name ¹	Mechanics of Elastic Continuous Media					Course code	IM.310.DI.DS		
Course type ²	DS	Category ³	DI	Year of study	III	Semester	6	Number of credit points	3

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

Pre-requisites from the curriculum ⁵	Compulsory	
	Recommended	Strength of Materials

General objective ⁶	Determination and comparison the different states of strains and stresses.
Specific objectives ⁷	<ul style="list-style-type: none"> • strains tensor, stresses tensor • principal stresses, principal strains • fundamental equations • strain energy • theory of strength
Course description ⁸	Variation of stresses about a point, principal stresses, Mohr's circle Variation of strains about a point, principal strains Equilibrium equations (Cauchy), equations of continuity (compatibility), Hooke's generalized equations, Airy's function for stresses Strain energy, strain energy involved in changing volume and form Theories of strength

Assessment			Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester		Week 5 Week 10	15%
	Activity during projects		Weeks 1-14	20%
	Assignments		Week 2-13	15%
Final assessment	Final assessment form ¹¹	Exam	Exam period	50%
	Examination procedures: The written test theoretical topics and applications			

Course organizer	Associate Professor Mocanu Florentina	
Teaching assistants	Associate Professor Mocanu Florentina	

¹Course 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