

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	3D Modeling of Mechanical Structures				Course code	4.EPI.04.DS			
Course type ²	DS	Category ³	DI	Year of study	4	Semester	7	Number of credit points	4

Faculty	Materials Science and Engineering	Number of teaching and learning hours ⁴					
Field	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	Equipments for industrial processes	100	28	-	14	-	54

Pre-requisites from the curriculum ⁵	Compulsory	
	Recommended	

General objective ⁶	Introduction to the use of three-dimensional modeling as a method of design and analysis of components of industrial process equipment.
Specific objectives ⁷	<ul style="list-style-type: none"> • Description of the basic concepts of three-dimensional modeling. • Knowledge of the principles and basic elements of three-dimensional modeling of mechanical structures. • Presentation of examples of three-dimensional modeling of mechanical structures.
Course description ⁸	Introduction. Models and modeling methods. 3D geometric modeling. 3D modeling for analysis. Data exchange standards. Advanced computer aided design techniques.

Assesment		Sche- dule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	-	70 % (minimum 5)
	Home works	-	
	Other activities	-	
	Examination procedures and conditions: 1. Subject with open questions; tasks: answer to open questions; working conditions: oral; percent of the final grade 100 %	100 % (minimum 5)	
B. Seminar	Activity during seminar		-
C. Laboratory	Activity during laboratory		30 % (minimum 5)
D. Project	Activity during project		-

Course organizer	Prof. dr. eng. Romeu Chelariu
Teaching assistants	Assoc. prof. dr. eng. Mihai Axinte

¹Course name from the curriculum

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

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

⁴Points 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)

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

⁶According to 7.1 from the Course guide – extended form

⁷According to 7.2 from the Course guide – extended form

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

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

¹⁰A minimum grade might be imposed for some assessment stages

¹¹Exam or colloquium