

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	DATA ACQUISITION AND PROCESSING IN EXPERIMENTAL ANALYSIS					Course code	MATAE IA 108		
Course type ²	DID	Category ³	DS	Year of study	II	Semester	2	Number of credit points	3

Faculty	MATERIALS SCIENCE AND ENGINEERING	Number of teaching and learning hours ⁴						
Field	MATERIALS ENGINEERING	Total	L	T	LB	P	IS	
Specialization	MATAE	75	14	-	14	-	47	

Pre-requisites from the curriculum ⁵	Compulsory	Physics, Electronics, Material science, Automation
	Recommended	Math

General objective ⁶	Transmit the theoretical and practical knowledge needed to acquire modern techniques to track physical phenomena or technological parameters
Specific objectives ⁷	Provide sufficient theoretical and practical knowledge for the use of specific data acquisition equipment and / or the choice of the electronic components required for a computerized data acquisition system
Course description ⁸	Transducer, Converters, Acquisition boards

Assesment			Sche- dule ⁹	Percentage in the final grade(minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	20%	6 th , 12 th week	60% (minimum 5)
	Home works	%		
	Other activities	%		
Exam	Examination procedures and conditions: 1. Treating a two subjects theoretic $p_1 = 35\%$; $p_2 = 35\%$; 2. Solving a practical problem $P = 30\%$.	80% (mini- mum 5)	Exam period	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Acttivity during laboratory			40% (minimum 5)
D. Project	Activityduringproject			% (minimum 5)

Course organizer	Professor Habil. PhD. Eng. Stefan Lucian TOMA	
Teaching assistants	Professor Habil. PhD. Eng. Stefan Lucian TOMA	

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

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