

# COURSE GUIDE – short form

Academic year 2024 - 2025

Course name <sup>1</sup>	<b>THE RELIABILITY OF MACHINERY FOR HEAT PROCESSING</b>					Discipline code	3.EPI.14.DS -1		
Course type <sup>2</sup>	DS	Category <sup>3</sup>	DO	Year of study	3	Semester	6	Number of credit points	3

Faculty	Material Science and Engineering					Number of teaching and learning hours <sup>4</sup>					
Field	Mechanical Engineering					Total	L	T	LB	P	IS
Specialization	Equipment for Industrial Processes					75	28		14		33

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	Mathematical analysis. Machine components.
	Recommended	

General objective <sup>6</sup>	Students should acquire foundational knowledge concerning the reliability principles and assessment methods for machinery utilized in heat processing applications.
Specific objectives <sup>7</sup>	Understanding the fundamentals, indicators, and testing methods for reliability. Developing systemic thinking to bridge theoretical and practical aspects of maintenance and diagnosis of modern systems through specific methods.
Course description <sup>8</sup>	The course focuses on the concept of reliability: fundamentals, indicators, areas of applicability, and reliability testing. The laboratory work centers on the reliability of equipment used in heat processing.

Assessment		Schedule <sup>9</sup>		Percentage of the final grade (minimum grade) <sup>10</sup>
A. Final assessment form <sup>11</sup> Colloquium	Class tests along the semester	%		80 % (minimum 5)
	Home works	20 %	week	
	Oral examination	%		
	Examination procedures and conditions: 1. , working conditions , percent %; 2. , working conditions , percent %; 3. , working conditions , percent %	80 % (minimum 5)	Week 14	
C. Laboratory	Activity during laboratory			20 % (minimum 5)
Course organizer	<b>Lecturer Ph.D. eng. Viorel GRANCEA</b>			
Teaching assistants	<b>Lecturer Ph.D. eng. Viorel GRANCEA</b>			

<sup>1</sup>Course name from the curriculum

<sup>2</sup> DF – fundamental, DD – in the field, DS – specialty, DC – complementary (from the curriculum)

<sup>3</sup> DI – imposed, DO – optional, DL – facultative (from the curriculum)

<sup>4</sup> 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)

<sup>5</sup> According to 4.1 – Pre-requisites - from the Course guide – extended form

<sup>6</sup> According to 7.1 from the Course guide – extended form

<sup>7</sup> According to 7.2 from the Course guide – extended form

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

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

<sup>10</sup> A minimum grade might be imposed for some assessment stages

<sup>11</sup> Exam or colloquium