

# COURSE GUIDE – short form

Academic year 2024 - 2025

Course name <sup>1</sup>	<b>NANOSTRUCTURED MATERIALS BY SEVERE PLASTIC DEFORMATION</b>					Codul disciplinei		MATAE IA 103		
Course type <sup>2</sup>	<b>DS</b>	Category <sup>3</sup>	<b>DI</b>	Year of study	1M	Semester	<b>1</b>	Number of credit points	<b>5</b>	

Faculty	Material Science and Engineering					Number of teaching and learning hours <sup>4</sup>					
Field	Materials Engineering					Total	L	T	LB	P	IS
Specialization	MATAE					<b>125</b>	<b>28</b>	<b>-</b>	<b>28</b>	<b>-</b>	<b>69</b>

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	Theoretical basis of plastic deformation
	Recommended	

General objective <sup>6</sup>	Communication of new knowledge in the field of high performance materials for new products and processes by integrating nanotechnology Top-Down (severe plastic deformation) and nanostructured materials in existing processes
Specific objectives <sup>7</sup>	Knowledge and application of technologies and nanostructuring by severe plastic deformation analysis of the effects on the properties induced by ultrafined grain
Course description <sup>8</sup>	Top-Down nanotechnologies for obtaining nanostructured materials - severe plastic deformation (DPS); Characterization of nanostructured materials / CLASS finished; Finishing and structural stability obtained by DPS.

Assessment		Schedule <sup>9</sup>		Percentage of the final grade (minimum grade) <sup>10</sup>
A. Final assessment form <sup>11</sup> exam	Class tests along the semester	%	week	50 % (minimum 5)
	Home works	%		
	Other activities	%	week	
	Examination procedures and conditions: 1. Subject with closed questions, working conditions mixed, percent 100 %; 2. -, working conditions -, percent %;	100 % (minimum 5)	exam period	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			50 % (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	<b>prof.dr.eng. Radu COMĂNECI</b>
Teaching assistants	<b>prof.dr.eng. Radu COMĂNECI</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

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<sup>11</sup> Exam or colloquium