

# COURSE GUIDE – short form

Academic year 2024-2025

Course name <sup>1</sup>	<b>PROFESSIONAL PRACTICE</b>					Course code	TAIPM PA 106		
Course type <sup>2</sup>	DI	Category <sup>3</sup>	DS	Year of study	1	Semester	1	Number of credit points	7

Faculty	Materials Science and Engineering	Number of teaching and learning hours <sup>4</sup>					
Field	Materials Engineering	Total	L	T	LB	P	IS
Specialization	TAIPM	175			175		

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	Not the case
	Recommended	Not the case

General objective <sup>6</sup>	Development of professional skills in the field of materials investigation to support professional training.
Specific objectives <sup>7</sup>	<p>Adequate and efficient use of foundational knowledge, criteria, and methods specific to the field of Materials Science.</p> <p><b>Cognitive (knowledge and appropriate use of concepts specific to the field):</b></p> <ul style="list-style-type: none"> <li>Understanding the design and manufacturing processes for thermal and mechanical elements in materials engineering;</li> <li>Knowledge of terms and concepts specific to thermal and mechanical systems in materials engineering;</li> <li>Principles underlying the manufacturing and functioning of thermal and mechanical systems in materials engineering;</li> <li>Criteria for selecting thermal and mechanical systems in materials engineering;</li> <li>Performance and reliability of thermal and mechanical systems in materials engineering.</li> </ul> <p><b>Explanation and Interpretation (explanation and interpretation of ideas, projects, processes, and theoretical and practical content of the discipline):</b></p> <ul style="list-style-type: none"> <li>Interdisciplinary phenomena involved in thermal and mechanical systems in materials engineering;</li> <li>Developing the ability to use and apply interdisciplinary knowledge;</li> <li>Performance of thermal and mechanical systems in materials engineering based on functional-constructive solutions.</li> </ul> <p><b>Technical/Professional (design and evaluation of specific practical activities; use of investigation and application methods, techniques, and tools):</b></p> <ul style="list-style-type: none"> <li>Ability to relate theoretical knowledge to practice;</li> <li>Capability to compare and select thermal and mechanical systems in materials engineering;</li> <li>Ability to maintain and repair devices containing thermal and mechanical systems in materials engineering.</li> </ul> <p><b>Attitudinal/Values (demonstrating a positive attitude toward the field):</b></p> <ul style="list-style-type: none"> <li>Development of an ethical, responsible professional attitude;</li> <li>Understanding the need for interdisciplinary collaboration with specialists in related fields;</li> <li>Fostering a team spirit.</li> </ul>
Course description <sup>8</sup>	<p>Chapter I: Workplace Safety Training and Company Overview</p> <p>Chapter II: Mechanical Testing and Chemical Analysis Laboratories</p> <p>Chapter III: Technological Processes</p>

Assesment			Schedule <sup>9</sup>	Percentage of the final grade (minimum grade) <sup>10</sup>
A. Final assessment form <sup>11</sup> :	Class tests along the semester	%		% (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Final Evaluation:	% (minimum grade 5)		
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			100% (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer		
Teaching assistants	Professor Ph.D. Eng. Petrică VIZUREANU	

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

<sup>2</sup> DF – fundamental, DID – 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