

# COURSE GUIDE – short form

Academic year 2021-2022

Course name <sup>1</sup>	Special methods in obtaining casted parts (2)				Course code	TAIPM IA 107			
Course type <sup>2</sup>	DA	Category <sup>3</sup>	DI	Year of study	1	Semester	2	Number of credit points	5

Faculty	Materials Science and Engineering	Number of teaching and learning hours <sup>4</sup>					
Field	Materials engineering	Total	L	T	LB	P	IS
Specialization	Advanced techniques regarding materials processing engineering	125	28		14		83

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	not necessary
	Recommended	not necessary

General objective <sup>6</sup>	The aim is to transmit the knowledge needed to obtain high-quality castings or special-purpose castings, which require special attention, experience and good technological training, in accordance with current procedures used in developed countries.
Specific objectives <sup>7</sup>	By completing this course, master students acquire new technical skills in the field of technological design, the use of advanced forming and casting materials, obtaining precise castings, or those with special purpose.
Course description <sup>8</sup>	<p>Obtaining precise parts by casting in shell shapes made with fusible models.</p> <p>Obtaining precise parts by casting in shell-forms with separation surface.</p> <p>Obtaining parts by casting in molds made of mixtures with special properties.</p> <p>Obtaining the parts by casting in molds made with the help of depression (vacuum forming or process V), considerations on the process, variants of the process, particularities of the process.</p> <p>Obtaining the parts by casting in forms made of magnetically solidified alloy.</p> <p>Obtaining parts by casting in molds made with the help of volatile models (forming materials, making volatile models).</p> <p>Execution of forms for casting art pieces (technological process, defects that may occur and their remodeling, quality criteria for art pieces).</p>

Assesment			Schedule <sup>9</sup>	Percentage in the final grade (minimum grade) <sup>10</sup>
A. Final assessment form <sup>11</sup> :	Class tests along the semester	%		60%
	Home works: 1 freely chosen subject	50%		
	Other activities	%		
Exam	Examination procedures and conditions: Probe 1: Oral Examination.	50%	exam period	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory: Oral answers; Laboratory notebook (experimental works, papers); Practical demonstration			40%
D. Project	Activity during project			% (minimum 5)

Course organizer	Prof. dr. eng. Sergiu STANCIU	
Teaching assistants	Şef lucr.dr.ing. Bogdan PRICOP	

---

<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