C O U R S E G U I D E – s h o r t f o r m

Academic year 2017-2018

Course name[1]	**Ferrous alloys smelting**					Course code		3IPM03DS	
Course type[2]	DID	Category[3]	DI	Year of study	III	Semester	5	Number of credit points	6

Faculty	Materials Science and Engineering	Number of teaching and learning hours[4]					
Field	Materials Science	Total	L	T	LB	P	IS
Specialization	Materials Processing Engineering	144	42	-	14	14	74

Pre-requisites from the curriculum[5]		
	Compulsory	-
	Recommended	-

General objective [6]	Processing of metallic and nonmetallic loads inside and outside the smelting equipment, in order to obtain a ferrous melt which could be used to obtain castings, according to the quality issues and economic efficiency.
Specific objectives[7]	• the analysis of the technological processing flow of metallic and nonmetallic charges heats, inside and/or outside a smelting equipment, as appropriate, to obtain molten metallic iron or steel, • heat preparation, smelting equipment preparation, • loading, smelting, metal bath overheating, metallurgical treatment of metal bath (inside/ outside the smelting equipment), • smelting discharge.
Course description[8]	1. Introduction. The history of metallic and nonmetallic loads processing, in order to obtain cast iron and steel. 2. Logical scheme of a ferrous alloy smelting flow. 3. Cast irons. Definition. Classification criteria. Grades. Cast iron smelting. 4. Steels. Definition. Classification criteria. Grades. Steel smelting.

Assessment			Schedule[9]	Percentage of the final grade (minimum grade)[10]
Continuous assessment	Activity during laboratory works		Weeks 1-14	30 %
	Activity during projects		Weeks 1-14	25 %
Final assessment	Final assessment form[11]	Exam	Exam.period	45 %
	Final assessment – written examination through multiple choice test. Multiple choice test consists of nine open type subjects, composed of simple key questions, true / false, completion.			

Course organizer	Prof. PhD. Eng.Stanciu Sergiu	
Teaching assistants	Asoc.Prof. PhD. Eng. Nicanor Cimpoeșu Lecturer PhD Eng. Mihai Axinte	

[1]Course 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
[9] For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period
[10] A minimum grade might be imposed for some assessment stages
[11] Exam or colloquium