

Fundamental domain of study (DFI): Mathematics and Nature Sciences
Branch of science (RSI): Chemistry and Chemical Engineering
Bachelor area (DL): Chemical Engineering

Code FA	Code BS	Code LA	cycle	c1c2c3	a1a2	current year
10.30.50			L	090	17	17

EDUCATIONAL PLAN
2017 - 2021

	FIRST YEAR										SECOND YEAR																									
	1st SEMESTER					2nd SEMESTER					3rd SEMESTER					4th SEMESTER																				
1	Algebra and Geometry					Physics					Fundamentals of Electrical and Electronic Engineering					Microeconomy																				
	L090.17.0R.F1	4	E	28	28	0	0	DF	56	L090.17.0R.F1	5	E	42	14	14	0	DF	56	L090.17.0R.D1	3	D	28	0	14	0	DD	48	L090.17.0R.C1	3	D	28	14	0	0	DC	50
2	Material Sciences					Mathematical analysis					Computer Assisted Mathematics					Hydrodynamics																				
	L090.17.0R.D2	5	E	28	0	28	0	DD	28	L090.17.0R.F2	4	E	28	28	0	0	DF	56	L090.17.0R.F2	4	D	28	14	14	0	DF	56	L090.17.0R.D2	4	E	28	14	14	0	DD	44
3	Inorganic Chemistry I					Inorganic Chemistry II					Organic Chemistry I					Organic Chemistry II																				
	L090.17.0R.D3	5	E	28	28	14	0	DD	57	L090.17.0R.D3	5	E	42	14	14	0	DD	57	L090.17.0R.D3	6	E	35	14	42	0	DD	79	L090.17.0R.D3	5	E	35	0	28	0	DD	52
4	Computer programming and applications					Analytical Chemistry I					Physical Chemistry I					Biochemistry																				
	L090.17.0R.F4	5	D	28	0	42	0	DF	60	L090.17.0R.D4	5	E	28	0	28	0	DD	56	L090.17.0R.F4	4	E	28	14	0	0	DF	42	L090.17.0R.F4	2	D	14	14	0	0	DF	26
5	General Chemistry					Fundamentals of Mechanical Engineering					Analytical Chemistry II					Electrochemistry																				
	L090.17.0R.F5	5	E	28	14	14	0	DF	47	L090.17.0R.D5	3	D	28	14	0	0	DD	66	L090.17.0R.D5	5	E	28	0	28	0	DD	56	L090.17.0R.D5	4	D	28	0	28	0	DD	44
6	Culture and Civilization					Computer Assisted Technical Graphics					The structure and properties of molecules					Physical Chemistry II																				
	L090.17.0R.C6	2	D	14	14	0	0	DC	24	L090.17.0R.F6	4	D	14	0	28	0	DF	60	L090.17.0R.S6	4	E	21	0	28	0	DS	51	L090.17.0R.F6	6	E	35	14	28	0	DF	42
7	Foreign languages					Foreign languages					Design and Calculation of Chemical Equipment					Instrumental Analytical Chemistry																				
	L090.17.0R.C7	2	D	0	28	0	0	DC	56	L090.17.0R.C7	2	D	0	28	0	0	DC	56	L090.17.0R.D7	2	D	14	0	14	0	DD	22	L090.17.0R.D7	4	E	28	0	28	0	DD	56
8	Physical education					Physical education					Physical education					Physical education																				
	L090.17.0R.C8	2	D	0	14	0	0	DC		L090.17.0R.C8	2	D	0	14	0	0	DC		L090.17.0R.C8	2	D	0	14	0	0	DC		L090.17.0R.C8	2	D	0	14	0	0	DC	
9	Facultative course 1					Facultative course 2					Facultative course 3					Facultative course 4																				
	L090.17.0R.f9-ij							f		L090.17.0R.f9-ij							f		L090.17.0R.f9-ij							f		L090.17.0R.f9-ij						f		
total/ sem.	hours:	378			VPI:	328			hours:	378			VPI:	407			hours:	378			VPI:	354			hours:	392			VPI:	314						
	credits:	30			ratings:	4E, 4D			credits:	30			ratings:	4E, 4D			credits:	30			ratings:	4E, 4D			credits:	30			ratings:	4E, 4D						
total/ week	hours:	27							hours:	27							hours:	27							hours:	28										
	of which:				11	9	7	0	(c, s, l, p)	of which:				13	8	6	0	(c, s, l, p)	of which:				13	4	10	0	(c, s, l, p)	of which:				14	5	9	0	(c, s, l, p)

RECTOR,
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DEAN,
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**FACULTATIVE COURSES
2017 - 2021**

	FIRST YEAR										SECOND YEAR																									
	1st SEMESTER					2nd SEMESTER					3rd SEMESTER					4th SEMESTER																				
01	Psychology of Education										Pedagogics I					Pedagogics II					Didactics															
	L090.17.0R.f9-01	5	E	28	28	0	0	f	70	L090.17.0R.f9-01	5	E	28	28	0	0	f	60	L090.17.0R.f9-01	5	E	28	28	0	0	f	60	L090.17.0R.f9-01	5	E	28	28	0	0	f	60
02											Volunteering										Volunteering															
										L090.17.0R.f9-02	2	C	0	0	28	0	f	40									L090.17.0R.f9-02	2	C	0	0	28	0	f	40	
03																					Social responsibility and civic activism															
																			L090.17.0R.f9-03	2	E	28	28	0	0	f	40									
total/sem.	hours:	56	VPI:						70	hours:	84	VPI:						100	hours:	56	VPI:					60	hours:	140	VPI:					140		
	credits:	5	ratings:							credits:	7	ratings:							credits:	5	ratings:						credits:	9	ratings:							
total/week	hours:	4								hours:	6								hours:	4							hours:	10								
	of which:			2	2	0	0		(c, s, l, p)	of which:			2	2	2	0		(c, s, l, p)	of which:			2	2	0	0		(c, s, l, p)	of which:		4	4	2	0	(c, s, l, p)		

Legend

Name of discipline									
Code	nc	FE	c	s	l	p	CF	VPI	

Cod = discipline code
nc = nr. of transferable credits
FE = assessment form
FE ∈ {E, D, C, P-E, P-D}
E=exam
D=distributed assessment
C=colloquy
P - E - autonomous project rated like the disciplines with exam
P - D - autonomous project rated like the disciplines with distributed assessment
c=nr. of course hours / semester

s=nr.hours seminar
l=nr.ore laboratory
p=nr.hours project
CF=formative category it belongs discipline
CF ∈ {DC, DD, DF, DS}
DC - complementary discipline
DD - discipline in the area
DF - fundamental discipline
DS - specialty discipline
VPI = volume of hours required for individual preparation
Example

Mathematical analysis									
Cod	4	E	28	28	0	0	DF	60	

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Fundamental field (DFI): Mathematics and Natural Sciences
Branch of science (RSI): Chimie și inginerie chimică
Bachelor studies program (DL): Chemical Engineering
Specialization (S): INORGANICS ENGINEERING AND ENVIRONMENTAL PROTECTION

Code DFI, Code R1, Cod Code S	cycle	c1c2c3	a1a2	current year
10.30.50.10	L	093	17	17

EDUCATION PLAN
2017- 2021

		YEAR III***										YEAR IV***																												
		SEMESTER 5					SEMESTER 6					SEMESTER 7					SEMESTER 8																							
1	Management	L093.17.05.D1	2	D	14	14	0	0	DD	29	L093.17.06.D1	2	D	14	14	0	0	DD	29	L093.17.07.S1-ij	4	E	28	0	28	0	DS	44	L093.17.08.S1-ij	3	E	28	0	14	0	DS	37			
2	Heat Transfer	L093.17.05.D2	4	E	28	0	14	14	DD	60	L093.17.06.D2	4	E	28	0	14	14	DD	47	L093.17.07.S2	5	E	35	0	14	14	DS	54	L093.17.08.S2-ij	4	E	28	0	14	0	DS	58			
3	Principles of Chemical Technology	L093.17.05.D3	4	D	28	0	28	0	DD	44	L093.17.06.D3	4	E	35	0	21	0	DD	47	L093.17.07.D3	5	E	28	0	28	0	DD	47	L093.17.08.S3-ij	3	E	28	0	14	0	DS	28			
4	Chemical Kinetics	L093.17.05.S4	4	E	28	0	28	0	DS	56	L093.17.06.D4	4	E	28	0	28	0	DD	37	L093.17.07.C4	2	D	0	14	0	0	DC	14	L093.17.08.S4-ij	5	E	35	0	21	0	DS	56			
5	Optional Course I	L093.17.05.S5-ij	4	E	28	0	28	0	DS	56	L093.17.06.S5	4	D	28	0	28	0	DS	44	L093.17.07.S5	5	E	35	0	28	0	DS	55	L093.17.08.S5	5	D	0	0	0	182	DS	98			
6	Optional Course II	L093.17.05.S6-ij	4	D	28	0	28	0	DS	69	L093.17.06.S6	4	E	28	0	28	0	DS	44	L093.17.07.S6-ij	5	D	28	0	28	0	DS	69	L093.17.08.6	10	E	0	0	0	0					
7	Optional Course III	L093.17.05.S7-ij	4	E	28	0	28	0	DS	56	L093.17.06.S7	4	D	28	0	28	0	DS	44	L093.17.07.S7L09	4	D	28	0	28	0	DS	44												
8	Practice (120 HOURS)	L093.17.05.D8	4	C	0	0	0	0	DD	2	L093.17.06.D8	4	C	0	0	0	0	DD	2																					
9	Facultative Discipline 1	L093.17.05.f9-ij							f		L093.17.06.f9-ij							f		L093.17.07.f9-ij							f		L093.17.08.f9-ij						f					
total/sem.	hours:	364			VPI:			372			hours:	364			VPI:			294			hours:	364			VPI:			327			hours:	364			VPI:			277		
	credits:	30			evaluations: 4E,3D,1C			8			credits:	30			evaluations: 4E,3D,1C			8			credits:	30			evaluations: 4E,3D,1C			8			credits:	30			evaluations: 5E, 1D			6		
total/week	hours:	26									hours:	26									hours:	26									hours:	26								
	of which	13.0	1.0	11.0	1.0	(c, s, l, p)			of which:	13.5	1.0	10.5	1.0	(c, s, l, p)			of which	13.0	1.0	11.0	1.0	(c, s, l, p)			of which:	8.5	0.0	4.5	13.0	(c, s, l, p)										

** Lasting 7 weeks x 26 hours of which 2 weeks x 26 hours internship; ** consists of: a. verification of basic and specialized knowledge; b. Diploma Thesis defence / Diploma degree.

***The optional disciplines will be chosen by students from the offert presented in the table "Optional Disciplines".

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OPTIONAL COURSES - ISAPM
2017 - 2021

	YEAR III										YEAR IV									
	SEMESTER 5					SEMESTER 6					SEMESTER 7					SEMESTER 8				
01	Optional Course I - Inorganic Pigments Technology L093.17.05.S5-01 4 E 28 0 28 0 DS 56										Optional Course IV - Technologies for Waters Purification L093.17.07.S01-ij 4 E 28 0 28 0 DS 44					Optional Course VII - Technologies for Water Treatment L093.17.08.S1-01 3 E 28 0 14 0 DS 37				
02	Optional Course I - Ceramics, Glass and Inorganic Binders L093.17.05.S5-02 4 E 28 0 28 0 DS 56										Optional Course IV - Waste Processing in Industrial Chemistry L093.17.07.S02-ij 4 E 28 0 28 0 DS 44					Optional Course VII - Installations for water treatment L093.17.08.S1-02 3 E 28 0 14 0 DS 37				
03	Optional Course II - Crystallography L093.17.05.S6-03 4 D 28 0 28 0 DS 69										Optional Course V - Thermal-Technological Instalations in Chemical Industry L093.17.07.S6-ij 5 D 28 0 28 0 DS 69					Optional Course VIII - Control of Environment Factors L093.17.08.S2-03 4 E 28 0 14 0 DS 58				
04	Optional Course II - Mineralogy L093.17.05.S6-04 4 D 28 0 28 0 DS 69										Optional Course V - Machineries in Inorganic Chemical Industry L093.17.07.S6-ij 5 D 28 0 28 0 DS 69					Optional Course VIII - Hazard and Chemical Risk L093.17.08.S2-04 4 E 28 0 14 0 DS 58				
05	Optional Course III - Physical Chemistry of the Solid States L093.17.05.S7-05 4 E 28 0 28 0 DS 56										Optional Course VI - Corrosion and anticorrosion protection L093.17.07.S7-ij 4 D 28 0 28 0 DS 44					Optional Course IX - Nanomaterials L093.17.08.S3-05 3 E 28 0 14 0 DS 28				
06	Optional Course III - Structure and Propertys of Solids L093.17.05.S7-06 4 E 28 0 28 0 DS 56										Optional Course VI - Electrochemical power sources L093.17.07.S7SEM 4 D 28 0 28 0 DS 44					Optional Course IX - Composite Materials L093.17.08.S3-06 3 E 28 0 14 0 DS 28				
07																Optional Course X - Special Inorganic Products L093.17.08.S4-07 5 E 35 0 21 0 DS 56				
08																Optional Course X - Inorganic Binders L093.17.08.S4-08 5 E 35 0 21 0 DS 56				
09																				
10																				
11																				
12																				

Note: From each group of Optional Disciplines, a number of disciplines activate based on students' options, the number of students and the financial coverage.

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FACULTATIVE DISCIPLINE - ISAPM

2017 - 2021

		YEAR III				YEAR IV																																	
		SEMESTER 5		SEMESTER 6		SEMESTER 7		SEMESTER 8																															
01	Elearning	Classroom Management		Quality Assurance in Inorganic Chemical Industry		Experimental Planning and Results Interpretation Methods																																	
	L093.17.05.f9-01	2	D	14	14	0	0	f	24																														
	L093.17.06.f9-01	3	E	14	14	0	0	f	40																														
	L093.17.07.f9-01	4	E	28	0	0	0	f	28																														
	L093.17.08.f9-01	5	d	28	0	14	0	f	56																														
02	Teaching Practice in Secondary Education compulsory 1	Teaching Practice in Secondary Education compulsory 2		Design of Industrial Processes According to Environmental Legislation		Volunteer																																	
	L093.17.05.f9-02	3	D	0	0	0	42	f	0																														
	L093.17.06.f9-02	2	D	0	0	0	36	f	0																														
	L093.17.07.f9-02	4	e	28	0	0	0	f	28																														
	L093.17.08.f9-02	2	C	0	0	28	0	f	40																														
03		Graduation Exam: Level 1																																					
	L093.17.06.f9-03	5	E	0	0	0	0	f	0																														
04		Volunteer																																					
	L093.17.06.f9-04	2	C	0	0	28	0	f	40																														
total/sem.	hours:	70		VPI:		24		hours:		64		VPI:		40		hours:		56		VPI:		56		hours:		70		VPI:		96									
	credits:	5		evaluation:				credits:		10		evaluări: 1E		1		credits:		8		evaluări: 1E, 1D		2		credits:		7		evaluation: 1E		1									
total/week	hours:	5						hours:		7						hours:		4						hours:		5													
	of which	1		1		0		3		(c, s, l, p)						of which		4		0		0		0		(c, s, l, p)		of which:		2		0		3		0		(c, s, l, p)	

Legend

Discipline Name									
Code	nc	FE	c	s	l	p	CF	VPI	

Cod = cod disciplina
nc = nr.credite transferabile
FE = forma de evaluare
FE e {E, D, C, P-E, P-D}
E=exam
D=distributed evaluation
C=colloquy
P - E - autonomously project with evaluation similar to the disciplines with exam
P - D - proiect autonom cu examinare ca si in cazul disciplinelor cu evaluare distribuita
c=course/semester hours no

s= seminar hours no
l=laboratory hours no
p=project hours no
CF=formative category of discipline
CF e {DC, DD, DF, DS}
DC - complementary discipline
DD - discipline in field
DF - fundamental discipline
DS - specialized discipline
VPI = Volume of hours for individual training

Example

Mathematical analysis									
Code	4	E	28	28	0	0	DF	60	

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