

ECONOMIC ENGINEERING IN CHEMICAL AND MATERIALS INDUSTRY

CURRICULUM

1st Year

1st Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Calculus	2	2	0	0	5	E
2	Physics I	2	0	2	0	4	E
3	General Chemistry	2	0	2	0	5	E
4	Microeconomics	2	2	0	0	4	E
5	Computer Programming and Programming Languages I	1	0	2	0	4	V
6	Physical Training I	0	0	2	0	2	V
Compulsory TOTAL		9	4	8	0	24	
Electives							
7	European Integration	2	2	0	0	4	V
	Politics						
8	Foreign Language 1	0	2	0	0	2	V
	Foreign Language 2						
Electives TOTAL		2	4	0	0	6	
Compulsory and Electives TOTAL		11	8	8	0	30	
TOTAL (hours/week)		27					
Non-required Electives							
9	Education Psychology	2	2	0	0	4	V
Non-required Elective		2	2	0	0	4	

2nd Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Linear Algebra, Algebraic and Differential Geometry	2	2	0	0	5	E
2	Physics II	2	0	1	0	4	E
3	Organic Chemistry	2	2	0	0	5	E
4	Mechanics	2	0	1	0	3	V
5	Strength of Materials	2	0	1	0	3	V
5	Macroeconomics	2	2	0	0	4	E
6	Computer Programming and Programming Languages II	0	0	2	0	2	V
7	Physical Training II	0	0	2	0	2	V
Compulsory TOTAL		12	6	7	0	28	
Electives							
8	Foreign Language 3	0	2	0	0	2	V
	Foreign Language 4						
Electives TOTAL		0	2	0	0	2	
Compulsory and Electives TOTAL		12	8	7	0	30	
TOTAL (hours/week)		27					
Non-required Electives							
9	Pedagogy I	2	2	0	0	3	V
Non-required Electives TOTAL		2	2	0	0	3	

2nd Year

1st Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Advanced Mathematics	2	2	0	0	5	E
2	Physical Chemistry	2	2	0	0	5	E
3	Electrical and Electronic Technologies and Equipments	2	2	0	0	5	E
4	Communication	2	2	0	0	4	V
5	Engineering Graphics	1	0	2	0	4	V
6	Legislation	2	2	0	0	5	V
Compulsory TOTAL		11	10	2	0	28	
Electives							
7	Foreign Language 5	0	2	0	0	2	V
	Foreign Language 6						
Electives TOTAL		0	2	0	0	2	
Compulsory and Electives TOTAL		11	12	2	0	30	
TOTAL (hours/week)		25					
Non-required Electives							
8	Pedagogy II	2	2	0	0	5	V
Non-required TOTAL		2	2	0	0	5	

2nd Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Probabilities and Statistics	2	2	0	0	4	E
2	Mechanical Technologies and Equipments	2	1	1	0	4	E
3	Management	2	0	2	0	5	E
4	Managerial Communication	2	2	0	0	4	V
5	Commercial Legislation	2	2	0	0	4	V
Compulsory TOTAL		10	7	3	0	26	
Electives							
6	Inorganic Materials	3	0	2	0	5	E
	Organic Materials and Composites						
7	Sociology	2	2	0	0	4	V
	Psychology						
Electives TOTAL		5	4	0	0	4	
Compulsory and Electives TOTAL		14	9	5	0	30	
TOTAL (hours/week)		29					
Non-required Electives							
8	Didactics of Specialization	2	2	0	0	3	V
Non-required Electives TOTAL		2	2	0	0	3	

3rd Year

1st Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Fundamentals of Chemical Engineering	2	2	0	0	5	E
2	Economic Statistics and Econometrics	2	2	0	0	5	E
3	Business Economics	2	2	0	0	5	E
4	Accountancy	2	0	2	0	5	E
5	Electrochemistry and Corrosion	2	1	1	0	4	V
Compulsory TOTAL		10	7	3	0	24	
Electives							
7	Inorganic Technology	2	1	0	0	3	V
	Organic Technology						
8	Technology of Plastic Materials	2	1	0	0	3	V
	Technology of Oxide Materials						
Electives TOTAL		2	1	0	0	3	
Compulsory and Electives TOTAL		14	9	3	0	30	
TOTAL (hours/week)		26					
Non-required Electives							
8	Computer Aided Training	1	1	0	0	2	C
10	Pedagogy Practice	0	3	0	0	3	C
Non-required Electives TOTAL		1	4	0	0	5	

2nd Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Unit Operations in Process Industries I	2	2	1	0	5	E
2	Management of Information Systems	2	0	2	0	4	E
3	Marketing	2	1	0	1	4	E
4	Finance-Accounting Management	2	0	2	0	4	E
5	Analytical Control of Product Quality	2	0	2	0	3	V
6	Comparative Analysis of Technological Processes	2	2	0	0	4	V
7	Theory and Practice in International Negotiations	2	1	0	0	3	V
8	Practical Training					4	V
Compulsory TOTAL		14	6	7	1	30	
Electives							
Electives TOTAL		0	0	0	0	0	
Compulsory and Electives TOTAL		14	6	7	1	30	
TOTAL (hours/week)		28					
Non-required Electives							
9	Pedagogy Practice	0	3	0	0	2	C
10	Classroom Management	1	1	0	0	3	E
11	Final evaluation	0	0	0	0	5	E
Non-required Electives TOTAL		1	4	0	0	10	

4th Year

1st Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Unit Operations in Process Industries II	2	2	0	1	6	E
2	Operations Management	2	2	0	1	6	E
3	Risk Management in Industry	2	0	1	1	5	E
4	Transportation, Forwarding, and Insurance	2	0	2	0	5	E
5	Optimizing the Industrial Processes	2	2	0	0	4	V
Compulsory TOTAL		10	6	3	3	26	
Electives							
6	Sustainable Development	2	2	0	0	4	V
	Environment Protection						
Electives TOTAL		2	2	0	0	4	
Compulsory and Electives TOTAL		12	8	3	3	30	
TOTAL (hours/week)		26					

2nd Semester

No.	Discipline	Hours/Week				ECTS	Evaluation
		C	S	L	P		
Compulsory							
1	Chemical Reaction Engineering	3	0	2	0	5	V
3	Human Resource Management	2	0	2	1	5	V
4	Project Management	2	0	1	1	4	V
5	Management of International Business	2	2	0	0	4	V
6	License/Diploma Project Development	0	0	0	6	6	V
7	Practice for Diploma Project					2	V
Compulsory TOTAL		9	2	5	8	26	
Electives							
6	Strategic Management	2	2	0	0	4	V
	Quality Management						
Electives TOTAL		2	2	0	0	4	
Compulsory and Electives TOTAL		11	4	5	8	30	
TOTAL (hours/week)		28					