



Faculty of Petroleum Refining and Petrochemistry

Study Program: Environmental Engineering and Protection in Industry

Study period: 4 years Bachelor of Engineering
 Academic year structure: 2 semesters (14 weeks per semester)
 Examination sessions: winter session (January/February)
 summer session (June/July)
 Total ECTS: 240 (+4)
 Courses per year (C-course, S-seminar, L-Laboratory, P-project)

1st YEAR

No	Course	1 st Semester					2 nd Semester				
		C	S	L	P	ECTS	C	S	L	P	ECTS
1	Linear algebra, analytical and differential geometry	3	2	-		6					
2	Chemistry 1	4	-	2		7					
3	Analytical Chemistry	2	-	2		6					
4	Computer programming and programming languages	2	-	2		4					
5	Physics	2	-	2		5					
6	Physical Education and sport	-	1	-		1					
7	A. Foreign Languages- English	-	2	-		2					
	A. Foreign Languages- French										
	A. Foreign Languages- Deutch										
8	Mathematical analysis						2	2	-	-	5
9	Chemistry 2						2	-	2	-	5
10	Instrumental Analysis 1						2	-	4	-	6
11	Environmental Chemistry						2	-	2	-	5
12	Physical Education and sport						-	1	-	-	1
13	A. Technical drawing and infographics						-	2	-	-	2
	A. Descriptive geometry										
14	B. Physics of atmosphere						2	-	2	-	5
	B. Environmental physics										
15	C. Foreign Languages- English						-	2	-	-	2
	C. Foreign Languages- French										
	C. Foreign Languages- Deutch										

2nd YEAR

No	Course	1 st Semester					2 nd Semester				
		C	S	L	P	ECTS	C	S	L	P	ECTS
1	Chemistry 3	4	-	2	-	7					
2	Thermodynamics	2	1	2	-	7					
3	Instrumental Analysis 2	2		2	-	4					
4	Electrochemistry and corrosion elements	2	-	2	-	4					
5	Hydrology and Hydrogeology	2	-	1	-	3					
6	Electrotechnics	1	-	1	-	3					
7	Physical Education and sport	-	1	-	-	1					
8	A. Foreign Languages- English	-	2	-	-	2					
	A. Foreign Languages- French										
	A. Foreign Languages- Deutch										



Faculty of Petroleum Refining and Petrochemistry

9	Chemistry 4						4	-	2	-	5
10	Physical Chemistry						2	-	2	-	4
11	Numerical Methods						2	-	2	-	4
12	Mechanics and Strength of Materials						2	-	1	-	3
13	Prevention and integrated control of the pollution						2	-	2	-	3
14	Environmental Legislation						1	-	-	-	2
15	Geology						2	-	1	-	3
16	Physical Education and sport						-	1	-	-	1
17	Foreign Languages- English										
	Foreign Languages- French						-	2	-	-	2
	Foreign Languages- Deutch										
18	Industrial Training 1 (3 weeks a 30 hours/week)						-	-	-	-	4

3rd YEAR

No	Course	1 st Semester					2 nd Semester				
		C	S	L	P	ECTS	C	S	L	P	ECTS
1	Functional Derivatives and Organic Compounds	3	-	2	-	5					
2	Technologies with reduced impact on the environment	2	-	2	-	4					
3	Infographics	1	-	1	-	3					
4	Mass Transfer Processes	4	-	2	-	6					
5	Catalysis in the environmental protection	2	-	1	-	4					
6	Hydrodynamic Processes	2	-	2	-	4					
7	A. General Chemical Technology	2	-	2	-	4					
	A. The impact of the extraction and processing of the fuel on the environment	2	-	2	-	4					
9	Physical-Chemistry of Natural Substances						2	-	2	-	4
10	Technological and Biotechnological Process Control						2		2	-	4
11	Oil Processing Technology						2	-	2	-	4
12	Transfer phenomena and unit operation						2	-	2	-	4
13	The impact of the combustion installations on the environment						2	-	-	-	2
14	Chemical reactors						2	-	2	-	4
15	A. Investigation of the environmental factors						2	-	1	-	2
	A. Physical-chemical methods for analysis										
16	B. Ethics and academic integrity						2	-	1	-	2
	B. Ecology										
17	Industrial Training 2 (3 weeks a 30 hours/week)						-	-	-	-	4



Faculty of Petroleum Refining and Petrochemistry

4th YEAR

No	Course	1 st Semester					2 nd Semester				
		C	S	L	P	ECTS	C	S	L	P	ECTS
1	Clean technologies in Petroleum Industry	3	-	2	-	5					
2	Clean technologies in Petroleum Industry - Project	-	-	-	1	2					
3	Mechanical engineering	2	-	2	-	3					
4	Mechanical engineering - Project	-	-	-	1	2					
5	Pedology and Soil Reconstruction	2	-	2	-	3					
6	Petrochemical Technology	2	-	2	-	5					
7	Technologies and equipment for air cleaning	3	-	2	-	5					
8	Technologies and equipment for treatment and cleaning of water	2	-	2	-	5					
9	Technologies and equipment for treatment and cleaning of water	2	-	2	-	5					
10	Pollutants in Petroleum Industry						3	-	2	-	4
11	Biochemical Processes Engineering						2	-	1	-	4
12	Environmental Project Management						2	1	-	-	3
13	Technologies and equipment for air cleaning - Project						-	-	-	2	2
14	Technologies and equipment for treatment and cleaning of water - Project						-	-	-	2	2
15	A. Mineral Oil Technology						3	-	2	-	4
	A. Management of water resources										
16	B. Integrated management of waste						2	-	2	-	3
	B. Pollutant sources, processes and products										
17	Elaboration of the diploma project									4	4
18	Diploma project industrial training (2 weeks)						-	-	-	-	4