UNIVERSITY OF NOVI SAD
FACULTY OF TECHNOLOGY NOVI SAD
21000 Novi Sad, Bul cara Lazara 1

CHEMICAL ENGINEERING

Module: OIL-PETROCHEMICAL ENGINEERING

No.	Course	Semester	Course Status	Active teaching			ECTS
				Lectures	Exercises	OFL	
FIRST YEAR							
1.	Calculus 1	1.	C	4	4	0	9
2.	Engineering Physics	1.	C	3	2	0	6
3.	General and Inorganic Chemistry	1.	C	4	1	2	8
4.	Elective block 1	1.	E	2	1	0	3
5.	Elective block 2	1.	E	2	0-2	0-2	4
6.	Calculus II	2.	C	4	4	0	9
7.	Organic Chemistry	2.	C	4	0	3	8
8.	Analytical Chemistry	2.	C	3	1	2	8
9.	Elective block 3	2.	E	2	0-2	0-2	5
ELECTIVE BLOCK 1 (choose 1 out of 2)							
4.1.	English Language 1	1.	E	2	1	0	3
4.2.	English Language 2	1.	E	2	1	0	3
ELECTIVE BLOCK 2 (choose 1 out of 2)							
5.1.	Chemical Laboratory Practicum	1.	E	2	0	2	4
5.2.	Calculations in Chemistry	1.	E	2	2	0	4
ELECTIVE BLOCK 3 (choose 1 out of 2)							
9.1.	Fundamentals of Engineering	2.	E	2	0	2	5
9.2.	Mechanical Engineering Elements	2.	E	2	2	0	5
			Total ECTS Credits				60
SECOND YEAR							
10.	Technical Thermodynamics	3.	C	4	3	0	8
11.	Physical Chemistry	3.	C	4	1	2	8

12.	Applications of Computers	3.	C	2	0	4	7
13.	Fluid Mechanics	3.	C	3	3	0	7
14.	Unit Operations 1	4.	C	3	3	1	9
15.	Heat and Mass Transfer	4.	C	3	3	0	7
16.	Transportation of crude oil and natural gas	4.	C	4	2	1	7
17.	Elective block 4	4.	C	4	0-2	0-2	7
ELECTIVE BLOCK 4 (choose 1 out of 2)							
17.1.	Catalysis and Catalytic Processes	6.	E	4	0	2	7
17.2.	Introduction to Materials	6.	E	4	2	0	7
					Total ECTS Credits		60
THIRD YEAR							
18.	Unit Operations 2	5.	C	3	2	1	7
19.	Chemical Thermodynamics	5.	C	3	3	0	8
20.	Chemical Reaction Engineering 1	5.	C	3	3	0	7
21.	Petroleum Refining Processes	5.	C	4	2	1	8
22.	Chemical Engineering Calculations	6.	C	3	0	3	6
23.	Petroleum Products	6.	C	4	0	3	8
24.	Primary Petrochemicals Production Processes	6.	C	4	2	1	8
25.	Natural Gas Processing and Application	6.	C	4	1	2	8
					Total ECTS Credits		60
FORTH YEAR							
26.	Secondary Petrochemicals Production Processes	7.	C	4	2	1	8
27.	Alternative Fuels	7.	C	2	0	2	5
28.	Elective block 5	7.	E	3	0	3	8
29.	Elective block 6	7.	E	3	3	0	7
30.	Vocational Practice	7.	C	0	0	6	3
33.	Sustainable Development and Industrial Systems	8.	C	3	0	2	5

34.	Applied Software Engineering	4.	C	3	0	2	5
35.	Elective block 7	8.	E	3	0	0	3
36.	Elective block 8	8.	E	3	0	3	7
37.	Undergraduate thesis - Research Work	8.	C	0	0	3	3
38.	Undergraduate thesis - Preparation and Defence	8.	C	0	0	6	6
ELECTIVE BLOCK 5 (choose 1 out of 2)							
28.1	Waste Gas Treatment Technology	7.	E	3	0	3	8
28.2.	Environmental Management in Oil and Petrochemical Industry	7.	E	3	0	3	8
ELECTIVE BLOCK 6 (choose 1 out of 2)							
29.1.	Optimization of Petroleum Refining	7.	E	3	3	0	7
29.2.	Combustion Processes	7.	E	3	3	0	7
ELECTIVE BLOCK 7 (choose 1 out of 2)							
35.1.	Production management	8.	E	3	0	0	3
35.2.	English for Specific Purposes	8.	E	3	0	0	3
ELECTIVE BLOCK 8 (choose 1 out of 2)							
36.1	Instrumental Methods of Analysis in Oil-petrochemical Industry	8.	E	3	0	3	7
36.2	Liquefied Natural Gas	8.	E	3	0	3	7

Total ECTS Credits		60

COURSE STATUS:
C – Compulsory
E – Elective
OFL – Other Forms of Lectures