



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



## CHEMICAL ENGINEERING

### Module: CHEMICAL PROCESS ENGINEERING

No.	Course	Semester	Course Status	Active teaching			ECTS
				Lectures	Exercises	OFL	
<b>FIRST YEAR</b>							
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
<b>ELECTIVE BLOCK 1 (choose 1 out of 2)</b>							
4.1.	English Language 1	1.	E	2	1	0	3
4.2.	English Language 2	1.	E	2	1	0	3
<b>ELECTIVE BLOCK 2 (choose 1 out of 2)</b>							
5.1.	Chemical Laboratory Practicum	1.	E	2	0	2	4
5.2.	Calculations in Chemistry	1.	E	2	2	0	4
<b>ELECTIVE BLOCK 3 (choose 1 out of 2)</b>							
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
<b>SECOND YEAR</b>							
10.	Technical Thermodynamics	3.	C	4	3	0	8
11.	Physical Chemistry	3.	C	4	1	2	8



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



## CHEMICAL ENGINEERING

12.	Applications of Computers	3.	C	2	0	4	7
13.	Fluid Mechanics	3.	C	3	3	0	7
14.	Introduction to Chemical Engineering	3.	C	2	0	1	3
15.	Unit Operations 1	4.	C	3	3	1	9
16.	Heat and Mass Transfer	4.	C	3	3	0	7
17.	Process Measurement Techniques	4.	C	3	0	3	6
18.	Applied Software Engineering	4.	C	3	0	2	5

Total ECTS Credits	<b>60</b>
--------------------	-----------

### THIRD YEAR

19.	Unit Operations 2	5.	C	3	2	1	7
20.	Chemical Thermodynamics	5.	C	3	3	0	8
21.	Chemical Reaction Engineering 1	5.	C	3	3	0	7
22.	Mathematical Methods in Chemical Engineering	5.	C	2	0	2	5
23.	Chemical Reaction Engineering 2	6.	C	3	3	0	7
24.	Chemical Engineering Calculations	6.	C	3	0	3	6
25.	Process Equipment Design 1	6.	C	3	0	3	7
26.	Elective block 4	6.	E	3-4	0-2	0-3	7
27.	Elective block 5	6.	E	3	0-3	0-3	6

#### ELECTIVE BLOCK 4 (choose 1 out of 3)

26.1.	Catalysis and Catalytic Processes	6.	E	4	0	2	7
26.2.	Environmental Protection in Chemical Industry	6.	E	3	0	3	7
26.3.	Introduction to Materials	6.	E	4	2	0	7

#### ELECTIVE BLOCK 5 (choose 1 out of 2)

27.1.	Instrumental Methods of Analysis	6.	E	3	0	3	6
27.2.	Wastewater Technology	6.	E	3	3	0	6

Total ECTS Credits	<b>60</b>
--------------------	-----------

### FORTH YEAR



## CHEMICAL ENGINEERING

28.	Process Equipment Design 2	7.	C	3	0	3	8
29.	Fundamentals of Process Control	7.	C	3	2	1	6
30.	Elective block 6	7.	E	3	0-3	0-3	6
31.	Vocational Practice	7.	C	0	0	6	3
32.	Elective block 7	7.	E	3	0-2	1-3	8
33.	Sustainable Development and Industrial Systems	8.	C	3	0	2	5
34.	Process Design	8.	C	3	0	3	8
35.	Elective block 8	8.	E	1-3	0	0-2	4
36.	Elective block 9	8.	E	3	0	0	3
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 6 (choose 1 out of 4)

30.1	Solid Waste and Hazardous Waste Management	7.	E	3	3	0	6
30.2.	Energy Efficiency of Technological Processes	7.	E	3	3	0	6
30.3.	Biofuels	7.	E	3	0	3	6
30.4.	Chemical Sensors	7.	E	3	0	2	6

### ELECTIVE BLOCK 7 (choose 1 out of 2)

32.1.	Mixing in Process Industry	8.	E	3	2	1	8
32.2.	Drying in the process Industry	8.	E	3	0	3	8

### ELECTIVE BLOCK 8 (choose 1 out of 2)

35.1.	Chemical Engineering Laboratory	8.	E	1	0	2	4
35.2.	Quality Management Systems in Industry	8.	E	3	0	0	4

### ELECTIVE BLOCK 9 (choose 1 out of 2)

36.1	Production management	8.	E	3	0	0	3
36.2	Innovative entrepreneurship	8.	E	3	0	0	3

Total ECTS Credits

60



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



**FACULTY OF  
TECHNOLOGY  
NOVI SAD**

## **CHEMICAL ENGINEERING**

COURSE STATUS:

C – Compulsory

E – Elective

OFL – Other Forms of Lectures