



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



BS PHARMACEUTICAL ENGINEERING

Module:

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
ELECTIVE BLOCK 1 (choose 1 out of 2)							
4.	English Language – Elementary Level	1.	E	2	1	0	3
4.	English Language - Upperintermediate Level	1.	E	2	1	0	3
ELECTIVE BLOCK 2 (choose 1 out of 2)							
5.	Calculations in Chemistry	1.	E	2	2	0	4
5.	Chemical Laboratory Practicum	1.	E	2	0	2	4
6.	Calculus 2	2.	C	4	4	0	9
7.	Analytical Chemistry	2.	C	3	1	2	8
8.	Organic Chemistry	2.	C	4	0	3	8
ELECTIVE BLOCK 3 (choose 1 out of 2)							
9.	Introduction to Engineering	2.	E	2	0	2	5
9.	Mechanical Engineering Elements	2.	E	2	2	0	5
				Total ECTS Credits		52	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



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13.	Chemistry of Natural Products	3.	C	3	0	3	7
14.	Unit Operations 1	4.	C	3	3	1	9
15.	Colloid Chemistry	4.	C	3	0	2	6
16.	Biochemistry	4.	C	3	0	3	8
17.	Microbiology	4.	C	3	0	3	7

Total ECTS Credits				50	60
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THIRD YEAR

18.	Unit Operations 2	5.	C	3	2	1	7
19.	Bioprocess Engineering	5.	C	3	3	0	6
20.	Pharmaceutical Chemistry	5.	C	3	0	3	6
21.	Pharmaceutical Polymers	5.	C	3	0	3	6
22.	Medicinal Herbal Raw Materials	5.	C	3	0	3	6

ELECTIVE BLOCK 4 (choose 1 out of 2)

23.	Water Technology in Pharmaceutical Industry	6.	E	2	2	0	5
23.	Enzyme Application in Pharmaceutical Industry	6.	E	2	0	2	5

24.	Synthesis of Pharmaceutical Active Substances	6.	C	3	0	3	6
25.	Biopharmaceuticals Production	6.	C	3	0	3	6

ELECTIVE BLOCK 5 (choose 1 out of 2)

26.	Pharmaceutical Process Equipment	6.	E	3	2	1	6
26.	Bioreactors	6.	E	3	2	1	6

ELECTIVE BLOCK 6 (choose 1 out of 2)

27.	Instrumental Methods of Analysis	6.	E	3	0	3	6
27.	Pharmaceutical Product Analysis	6.	E	3	0	3	6

Total ECTS Credits				58	60
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FORTH YEAR

28.	Technology of Pharmaceutical Products	7.	C	3	0	3	7
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29.	Technology of Cosmetic Products	7.	C	3	0	3	7
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ELECTIVE BLOCK 7 (choose 1 out of 2)

30.	Microbiological Control of Pharmaceutical and Cosmetic Products	7.	E	3	0	3	6
30.	Management of Quality and Safety of Products in the Pharmaceutical Industry	7.	E	3	3	0	6

ELECTIVE BLOCK 8 (choose 1 out of 2)

31.	Technology of Soaps, Detergents and Personal Care Products	7.	E	3	0	3	7
31.	Quality Control of Cosmetic Products	7.	E	3	0	3	7

32.	Vocational Practice	7.	C	0	0	6	3
33.	Pharmacology	8.	C	3	0	0	5
34.	Excipients in Technology of Ready-made Medications	8.	C	3	0	3	6
35.	Technology of Ready-made Medications	8.	C	3	0	3	7

ELECTIVE BLOCK 9 (choose 1 out of 2)

36.	Management of Industrial Production	8.	E	3	0	0	3
36.	English for Specific Purposes	8.	E	3	0	0	3
37.	Undergraduate Thesis - Research Work	8.	C/E	0	0	3	3
38.	Undergraduate Thesis - Preparation and Defense	8.	C/E	0	0	6	6

Total ECTS Credits	57	60
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Total ECTS Credits	217	240
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COURSE STATUS:

C – Compulsory

E – Elective

OFL – Other Forms of Lectures