

MINISTRY OF SCIENCE AND EDUCATION OF AZERBAIJAN REPUBLIC  
 "AZERBAIJAN STATE OIL AND INDUSTRY UNIVERSITY" PUBLIC LEGAL ENTITY

Approved by:  
 Acting Rector,  
 assoc. prof. Vazeh Askarov  
 2023

Specialty: 050618- "Chemical Engineering"  
 Duration of study - 4 years (8 semesters) full-time

CURRICULUM  
 (for bachelor's degree)  
 I. SCHEDULE OF THE EDUCATIONAL PROCESS

Courses	September				October			November				December				January			February			March				April			May				June			July			August						
	1	8	15	22	6	13	20	3	10	17	24	1	8	15	22	5	12	19	2	9	16	2	9	16	23	6	13	20	4	11	18	25	1	8	15	22	6	13	20	2	9	16	23		
I																																													
II																																													
III																																													
IV																																													

Symbols :      Theoretical training      Exam session      Practice      Holiday      Final state certification

II. PLAN OF EDUCATIONAL PROCESS

Number	Code of Subjects	Name of the subjects	Number of credits	Overall hours	Self Study	Course duration in class	Inclusive			C.P.	Prerequisite (it is necessary before training) subjects code	Korekvizit (intended for parallel teaching) subjects code	The semester in which is being planned to teach the subject (autumn or spring)	Weekly work-load
							Lecture	Seminar-Practice	Laboratory					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	HS-B00	<b>Humanitar subjects</b>	<b>30</b>	<b>900</b>	<b>480</b>	<b>420</b>	<b>90</b>	<b>330</b>						
1	HS-B01	History of Azerbaijan	5	150	90	60	30	30					3	4
2	HS-B02	Foreign Language: General English and Speech Practice	8	240	120	120		120					1	8
3	HS-B03	Foreign Language: Academic vocabulary and reading. Social communication skills	7	210	105	105		105					2	7
4	HS-B04	Business and academic communication in the Azerbaijani language	4	120	75	45		45					1	3
		<b>Elective subjects</b>	<b>6</b>	<b>180</b>	<b>90</b>	<b>90</b>	<b>60</b>	<b>30</b>						
5	ES-B05	Block I: 1) Philosophy; 2) Sociology; 3) Fundamentals of law; 4) Logic 5) Ethics and aesthetics; 6) Introduction to multiculturalism	3	90	45	45	30	15					4	3
6	ES-B06	Block II: 1) Information technology (specialty); 2) Information management; 3) Basics of entrepreneurship and introduction to business; 4) Politology	3	90	45	45	30	15					3	3
	VSS-B00	<b>Vocational training subjects of speciality</b>	<b>120</b>	<b>3600</b>	<b>2310</b>	<b>1290</b>	<b>690</b>	<b>315</b>	<b>285</b>					
7	VSS-B01	Analytical geometry and linear algebra	6	180	135	45	30	15					1	3
8	VSS-B02.1	Calculus I	6	180	135	45	30	15					1	3
9	VSS-B02.2	Calculus II	5	150	105	45	30	15		VSS-B02.1			2	3
10	VSS-B03	Applied mathematics	4	120	60	60	30	30					3	4
11	VSS-B04	General Chemistry I	6	180	105	75	30	15	30				1	5
12	VSS-B05	General Chemistry II (Inorganic chemistry)	6	180	120	60	30		30				2	4
13	VSS-B06	Organic chemistry	5	150	75	75	45		30				3	5
14	VSS-B07	Basics of physics	6	180	120	60	30	15	15				2	4
15	VSS-B08	Introduction to Chemical Engineering	4	120	60	60	30	15	15				3	4
16	VSS-B09	Materials science	6	180	135	45	30		15				4	3
17	VSS-B10	Fundamentals of Chemical Thermodynamics	9	270	180	90	45	15	30				4	6
18	VSS-B11	Chemical reactions engineering	6	180	90	90	45	15	30	VSS-B10			5	6
19	VSS-B12	Analytical chemistry and instrumental analysis	8	240	180	60	30		30				4	4
20	VSS-B13	Introduction to technical design	6	180	90	90	30	60					2	6
21	VSS-B14	Mass and heat transfer	5	150	105	45	30	15					5	3
22	VSS-B15	Fluid mechanics	3	90	45	45	30	15					5	3
23	VSS-B16	Separation processes	4	120	75	45	30	15					5	3
24	VSS-B17	Unit operations in chemical engineering	5	150	90	60	45	15					6	4
25	VSS-B18	Mathematical modeling in chemical engineering	4	120	60	60	30	30					6	4
26	VSS-B19.1	Chemical Engineering Laboratory I	4	120	90	30			30				6	2
27	VSS-B19.2	Chemical Engineering Laboratory II	4	120	90	30			30	VSS-B19.1			7	2
28	VSS-B20	Chemical process design	4	120	75	45	30	15					5	3
29	VSS-B21	Civil defense	4	120	90	30	30						4	2
	VTES-B00	<b>Elective subjects (vocational training)</b>	<b>60</b>	<b>1800</b>	<b>1200</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>180</b>					
30	VTES-B01	Unit I 1) Applied physics; 2) Quantum physics	9	270	225	45	30		15				3	3
31	VTES-B02	Unit II 1) Modern production technology of steel, ferroalloys and precious metals; 2) Industrial energy technologies; 3) Commercial oils	8	240	180	60	30	30					5	4
32	VTES-B03	Unit III 1) Chemical technology of ceramic and binding materials; 2) Chemistry and physics of polymers; 3) Petrochemistry	7	210	150	60	30		30				6	4

33	VTES-B04	Unit IV 1) Chemical technology of glass and glassceramics; 2) Chemical technology of organic substances; 3) An obtaining technologies of alternative fuels	7	210	135	75	30	15	30				6	5
34	VTES-B05	Unit V 1) Technology of electrochemical productions; 2) Chemical technology of macromolecules; 3) A processing technology of hydrocarbon gases	5	150	75	75	30	15	30				7	5
35	VTES-B06	Unit VI 1) Chemical technology of mineral fertilizers; 2) Biopolymers; 3) Purification technology of petroleum products	5	150	90	60	30		30				7	4
36	VTES-B07	Unit VII 1) Chemical technology of inorganic acids, bases, salts and gases; 2) Processing and application of polymers; 3) Thermocatalytic processes of oil refining	6	180	105	75	30	15	30	C.P.			7	5
37	VTES-B08	Unit VIII 1) Technology of structural materials; 2) Technology of anti-corrosion coatings based on high-molecular compounds; 3) Chemotology of fuels and lubricants	5	150	105	45	30		15				7	3
38	VTES-B09	Unit IX 1) Technical English; 2) Classical and fuzzy logic	3	90	60	30			30				7	2
39	VTES-B10	SƏTƏMM	2	60	30	30	30						7	2
40	VTES-B11	Project management	3	90	45	45	30	15					6	3

### III. EDUCATION PERIOD (weeks)

Education year	Theoretical training	Exam session	Experience	Final state certification	Vacation	Total
I	30	10	-	-	12	52
II	30	10	-	-	12	52
III	30	10	-	-	12	52
IV	15	5	14	6	2	42
Total:	105	35	14	6	38	198

### IV. INDICATORS OF THE EDUCATIONAL PROCESS

Semester	1	2	3	4	5	6	7	8		Total
								Practice	Final State Certification	
The number of credits	30	30	30	30	30	30	30	21	9	240
Number of exams	5	5	6	5	6	6	6	-	-	39
Weekly workload	22	24	22	18	22	23	21	-	-	

AGREED:

Vice Rector for Academic Affairs

Dean of the Faculty of Chemical Technology

Head of the Department of "Chemistry and Technology of Inorganic Substances"

Head of the Department of "Petrochemical Technology and Industrial Ecology"

Head of the Department "Technology of organic substances and high-molecular compounds"



associate professor G.A. Mammadov



Sc.D., professor S.A. Mammadkhanova



Sc.D., professor Y.N. Gahramanli



associate professor N.T. Aliyeva



Sc.D., professor F.A. Amirli