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: 050623 - Materials engineering

Duration: 4 years (8 terms)

CURRİCULUM

(bachelor's degree)

I. EDUCATIONAL PROCESS SCHEDULE

Years	september				29 IX	october			27 X	november				december				29 XII	january			26 I	februar			23 II	march				30 III	april				27 IV	may				june				29 VI	july			27 VII	august			
	1	8	15	22	5 X	6	13	20	2 XI	3	10	17	24	1	8	15	22	4 I	5	12	19	1 II	2	9	16	1 III	2	9	16	23	5 IV	6	13	20	3 V	4	11	18	25	1	8	15	22	5 VII	6	13	20	1 VIII	2	9	16	23
	7	14	21	28		12	19	26		9	16	23	30	7	14	21	28		11	18	25		8	15	22		8	15	22	29		12	19	26		10	17	24	31	7	14	21	28		12	19	26		8	15	22	29
I																		::	::	::	::	::	=	=																	::	::	::	::	::	=	=	=	=	=	=	=	=
II	=	=																::	::	::	::	::	=	=																	::	::	::	::	::	=	=	=	=	=	=	=	=
III	=	=																::	::	::	::	::	=	=																	::	::	::	::	::	=	=	=	=	=	=	=	=
IV	=	=																::	::	::	::	::	=	=	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	‖	‖	‖	‖	‖								

LEGEND: THEORETICAL TRAINING [ ] EXAMINATIONS [::] PRACTICAL TRAINING [X] FINAL STATE ATTESTATION [‖] HOLIDAYS [=]

II. EDUCATIONAL PROCESS PLAN

№	Subject code	Name of the subject	Number of cred	Total hours	Out of-class hours	Including				CW CP	Prere-quisite subject code	Co-requis-ite subject code	Term	Weekly load
						Total	Including by type of teaching							
							Lecture	Seminar	Labo-ratory					
	HS-BOO	**Humanitarian subjects**	**30**	**900**	**480**	**420**	**90**	**330**						
1	HS-B01	Azerbaijan history	5	150	90	60	30	30					2	4
2	HS-B02.1	Business and academic communication in a foreign language: General English	8	240	120	120		120					1	8
3	HS-B02.2	Business and academic communication in a foreign language: Speech Practice-Development of speech skills	7	210	105	105		105					2	7
4	HS-B03	Business and academic communication in the Azerbaijani language	4	120	75	45		45					3	3
		Elective subjects	**6**	**180**	**90**	**90**	**60**	**30**						
5	ES-B04	Block I: 1) Philosophy; 2) Sociology; 3) Constitution of the Republic of Azerbaijan and bases of law; 4) Logic; 5) Ethics and aesthetics; 6) Introduction to multiculturalism	3	90	45	45	30	15					4	3
6	ES-B05	Block II: 1) Information technology (by fields) 2) Information management 3) Basics of entrepreneurship and introduction to business 4) Political science	3	90	45	45	30	15					5	3
	VSS-BOO	**Vocational training subjects of the specialty**	**180**	**5400**	**3510**	**1890**	**1065**	**390**	**435**					
			120	**3600**	**2370**	**1230**	**705**	**255**	**270**					
7	VSS-B01	Linear algebra and analytic geometry	4	120	60	60	30	30					1	4
8	VSS-B02.1	Calculus-1	4	120	60	60	30	30					2	4
9	VSS-B02.2	Calculus-2	4	120	75	45	30	15			VSS-B02.1		3	3
10	VSS-B03	Applied mathematics	4	120	75	45	30	15					4	3
11	VSS-B04	General chemistry	5	150	90	60	30		30				1	4
12	VSS-B05	Physical chemistry	4	120	75	45	30		15				2	3
13	VSS-B06	General physics	6	180	120	60	30		30				3	4
14	VSS-B07	Applied physics	6	180	135	45	30		15				4	3
15	VSS-B08	Descriptive geometry and engineering graphics	6	180	120	60	30	30					1	4
16	VSS-B09	Computer graphic	3	90	60	30		30					2	2
17	VSS-B10	Materials science	7	210	150	60	30		30				3	4
18	VSS-B11	Mechanic	5	150	90	60	30	30					3	4
19	VSS-B12	Crystallography	4	120	75	45	30		15				3	3
20	VSS-B13	Materials technology	7	210	150	60	30		30				4	4
21	VSS-B14	Introduction to the specialty	4	120	90	30	30						1	2
22	VSS-B15	Recycling of materials	7	210	135	75	45		30				5	5
23	VSS-B16	Physico-chemical research methods of materials	4	120	75	45	30		15				4	3
24	VSS-B17	Physics of materials	7	210	135	75	30	15	30				5	5
25	VSS-B18	Basics of programming	4	120	90	30	15	15					2	2
26	VSS-B19	Design of new mateials based on special computer programs	5	150	90	60	30	30					5	4
27	VSS-B20	Civil defense	3	90	60	30	30						3	2
28	VSS-B21	Life safety	4	120	75	45	30		15				5	3
29	VSS-B22	Metrology, standardization and certification	4	120	90	30	15		15				4	2
30	VSS-B23	Material production equipment	5	150	105	45	30	15					4	3
31	VSS-B24	Engineer economy	4	120	90	30	30						5	2
		Elective subjects (Vocational training)	**60**	**1800**	**1140**	**660**	**360**	**135**	**165**					
32	VTES-B01	Block I: 1) Coating technologies; 2) Corrosion processes and protection methods; 3) Friction and antifriction materials;	8	240	150	90	45	15	30				7	6
33	VTES-B02	Block II; 1) Heat treatment processes; 2) Modeling and simulation in material production; 3) Calculation methods in materials science;	7	210	135	75	45	15	15	CP			6	5
34	VTES-B03	Block III; 1) Special properties steels; 2) Physical and mechanical properties of materials; 3) Powder-based composite materials.	7	210	135	75	45	15	15				6	5
35	VTES-B04	Block IV; 1) Basics of nanomaterials and nanotechnology; 2) Amorphous materials; 3) Semiconductor materials.	8	240	150	90	45	15	30	CW			7	6
36	VTES-B05	V block; 1) Powder metallurgy; 2) Innovation in material production; 3) Composite materials ;	8	240	165	75	45		30				7	5
37	VTES-B06	VI block; 1) Biomedical materials; 2) Polymeric materials; 3) Ceramic materials;	6	180	120	60	30	15	15				6	4
38	VTES-B07	Block VII; 1) Phase transformations in materials; 2) Methods of production of materials; 3) Materials with special physical and chemical properties;	8	240	150	90	45	15	30	CW			6	6
39	VTES-B08	Block VIII; 1) Technical foreign language; 2) Classical and fuzzy logic	3	90	60	30		30					7	2
40	VTES-B09	Block IX; 1) HSE	2	60	30	30	30						6	2

41	VTES-B10	Block X: 1) Project management	3	90	45	45	30	15					7	3

III. TRAINING PERIOD (weeks)

Education year	Theoretical training	Exam session	Experience	Final State attestation	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. TEACHING PROCESS INDICATORS

Term Semestr	1	2	3	4	5	6	7	8		Total
								Practice	Preparation and defense of the graduation work	
Number of credits	27	27	33	33	30	30	30	21	9	240
Number of exams	5	6	7	7	6	5	5			
Hours per week	22	22	23	21	22	22	22			41

Presented by:

Vice-Rector assoc. prof. G.A. Mammadov

Dean of the Faculty of Petroleum Mechanics assoc. prof. A.S. Ahmadov

Head of Department of Materials Science and Processing Technologies assoc. prof. T.G. Jabbarov