

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

"Confirm"

acting rektor assoc.prof.

Vazeh Askerov

2023

Speciality: 050630 – "Engineering physics"

The term of study: 4 years (8 semester)

EDUCATION PLAN

(For undergraduate level)

I. EDUCATIONAL PROCESS CHART

Courses	September				October				November				December				January				February				March				April				May				June				July				August			
	1	8	15	22	6	13	20	27	3	10	17	24	1	8	15	22	5	12	19	26	2	9	16	23	2	9	16	23	6	13	20	27	4	11	18	25	1	8	15	22	6	13	20	27	2	9	16	23
I																																																
II	=	=																																														
III	=	=																																														
IV	=	=																																														

Symbols: Theoretical training Exam session Practical work Final state certification holiday

II. EDUCATIONAL PROCESS PLAN

##	The subject code	The subject name	Credits	Total hours	Hours outside the auditorium	Auditorium time			C.W C.P	Prerequisite	Korek-vizit	Semester	Weekly lesson load
						Total	Including by type of teaching						
							Lecture	Seminar training					
	HS-BOO	Humanitarian subjects	30	900	480	420	90	330					
1	HS-B01	Azerbaijan history	5	150	90	60	30	30				3 4	
2	HS -B02.1	Foreign language: General English and Speech Practice	8	240	120	120		120				1 8	
3	HS -B02.2	Foreign language: Academic vocabulary and reading. Social communication skills.	7	210	105	105		105				2 7	
4	HS -B03	Business and academic communication in the Azerbaijani language	4	120	75	45	15	30				4 3	
		Elective subjects	6	180	90	90	45	45					
5	HES-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	15	30				5 3	
6	HES -B05	Block II: 1) Information technology; 2) Information management; 3) Basics of entrepreneurship and introduction to business 4) Political science	3	90	45	45	30	15				5 3	
			180	5400	3555	1845	930	585	330				
	VSS-BOO	Vocational training subjects of the specialty	120	3600	2385	1215	660	390	165				
7	VSS-B01	Linear algebra and analytical geometry	5	150	105	45	30	15				1 3	
8	VSS-B02.1	Calculus -1	5	150	105	45	30	15				1 3	
9	VSS-B02.2	Calculus -2	5	150	105	45	30	15		VSS-B02.1		2 3	
10	VSS-B03	Differential equations	7	210	135	75	45	30				3 5	
11	VSS-B04	Probability theory and mathematical statistics	4	120	75	45	30	15				4 3	
12	VSS-B05.1	Fundamentals of physics -1	8	240	165	75	30	30	15			1 5	
13	VSS-B05.2	Fundamentals of physics -2	8	240	165	75	30	30	15	VSS-B05.1		2 5	
14	VSS-B06	Quantum physics	8	240	150	90	45	30	15			3 6	
15	VSS-B07	Chemistry	6	180	120	60	30		30			2 4	
16	VSS-B08	Statistical physics and thermodynamics	7	210	150	60	30	30				4 4	
17	VSS-B09	Solid state physics	7	210	165	45	30	15				5 3	
18	VSS-B10	LASER physics	7	210	150	60	30	15	15			5 4	
19	VSS-B11	Engineer and computer graphics	6	180	120	60	30	30				3 4	
20	VSS-B12	Civil defense	3	90	45	45	30	15				2 3	
21	VSS-B13	Complex analysis	5	150	105	45	30	15				3 3	
22	VSS-B14	Management theory	4	120	75	45	30	15				4 3	
23	VSS-B15	Basics of electrical engineering and electronics	6	180	120	60	30	15	15			4 4	
24	VSS-B16	Programmable logic controllers	4	120	60	60	30		30			5 4	
25	VSS-B17	Strength of Materials	5	150	90	60	30	30				4 4	
26	VSS-B18	Machine theory	6	180	105	75	30	30	15			5 5	
27	VSS-B19	Basics of programming	4	120	75	45	30		15			1 3	
		Elective subjects (Vocational training)	60	1800	1170	630	270	195	165				
28	VTES-B01	Block I: 1) Application of lasers in modern industries; 2) Application of lasers in material processing; 3) Optoelectronics	7	210	120	90	30	30	30			6 6	
29	VTES -B02	Block II: 1) Alternative technologies; 2) Nuclear energy; 3) Physical bases of nanotechnologies	7	210	135	75	30	30	15			6 5	
30	VTES -B03	Block III: 1) Modeling of physical processes; 2) Computer modeling; 3) Modeling and simulation	6	180	120	60	30	15	15			6 4	
31	VTES -B04	Block IV: 1) Physical measurement and metrology; 2) Applied optics; 3) Physics of semiconductor devices	7	210	150	60	30	15	15			6 4	
32	VTES -B05	Block V: 1) Projects management	3	90	45	45	30	15				6 3	
33	VTES -B06	Block VI: 1) Corrosion and anti-corrosion treatment; 2) Basics of heat treatment and surface strengthening; 3) Physical materials science	8	240	165	75	30	15	30			7 5	
34	VTES -B07	Block VII: 1) Modern methods of research of materials; 2) Fundamentals of microelectronics; 3) Spectroscopy	9	270	180	90	30	30	30			7 6	

35	VTES -B08	Block VIII: 1) Non-metallic materials and their technology; 2) Functional materials; 3) Nanomaterials and their application	8	240	165	75	30	15	30				7	5
36	VTES -B09	Block IX: 1) Technical English; 2) Classical and fuzzy logic	3	90	60	30		30					7	2
37	VTES- B10	Block X: 1)Health safety and Environment (HSE)	2	60	30	30	30						7	2

III. Training course allotted time (weeks)

Education year	Theoretic al training	Exam session	practice	Final State certification	holiday	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 EDUCATION PROCESS

Semester	1	2	3	4	5	6	7	8		Total
								practice	Preparation of the release work and its protection	
Credits	30	29	31	30	30	30	30	21	9	240
Number of exams	5	5	5	6	6	5	5			37
Hours per week	22	22	22	21	22	22	20			

Presented by:

Vice Rector for Academic Affairs

Dean of the Power Engineering Faculty

Head of "Physics" department

associate professor Q.A.Mammadov

associate professor A.Q.Aliyev

professor M.A.Musayev