

**Ministry of Science and Education of the Azerbaijan Republic
Azerbaijan State Oil and Industry University PLE**

Confirm:
Acting Rector,

assoc. prof. **Vazeh Askarov**



Specialty: 050509 - Computer Science
Duration of study: 4 years (8 semesters)

« 12 » 09 2023

EDUCATION PLAN
(for undergraduate level)

I. EDUCATION PROCESS CHART

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

Conventional symbols: THEORETICAL TEACHING EXAMINATION SESSION EXPERIENCE VACATION



II. EDUCATIONAL PROCESS PLAN

Row N	Subject Code	Subject Name	Credits number	Total hours	Out-of-class hours	Total hours for classroom	Auditorium Including the type of training			C.W. C.P.	Prerequisite (the disciplines that are required to be taught)	Corequisite (the disciplines with parallel learning)	Semester where the subject is taught	Weekly workload
							Lecture	Seminar	Laboratory					
	HS-B00	Humanitarian subjects	30	900	495	405	105	300						
1.	HS-B01	History of Azerbaijan	5	150	90	60	30	30				2	4	
2.	HS-B02.1	Business and academic communication in a foreign language: General English	4	120	60	60		60				1	4	
3.	HS-B02.2	Business and academic communication in a foreign language: Speech Practice	3	90	45	45		45				2	3	
4.	HS-B02.3	Business and academic communication in a foreign language: Academic Vocabulary and Reading	4	120	60	60		60				3	4	
5.	HS-B02.4	Business and academic communication in a foreign language: Social Communication Skills	4	120	60	60		60				4	4	
6.	HS-B03	Business and academic communication in Azerbaijani	4	120	75	45	15	30				1	3	
		Elective courses subjects	6	180	105	75	60	15						
7.	HS-B04.1	Block I: 1) Philosophy; 2) Sociology; 3) Constitution of the Republic of Azerbaijan and foundations of law; 4) Ethics and aesthetics; 5) Logics; 6) Introduction to multiculturalism	3	90	45	45	30	15				5	3	
8.	HS-B04.2	Block II: 1) Information technology; 2) Information management; 3) Fundamentals of Entrepreneurship and Introduction to Business; 4) Political science	3	90	60	30	30					7	2	
	SPE-B00	Subjects of professional education	180	5400	3555	1845	1110	720	15					
9.	SPE-B01.1	Calculus-1	6	180	120	60	30	30				1	4	
10.	SPE-B01.2	Calculus-2	6	180	105	75	45	30		IPF-B01.1		2	5	
11.	SPE-B02	Complex analysis	4	120	75	45	30	15				3	3	
12.	SPE-B03.1	Fundamentals of programming-1	8	240	165	75	45	30				1	5	
13.	SPE-B03.2	Fundamentals of programming-2	6	180	120	60	30	30		IPF-B03.1		2	4	
14.	SPE-B04	Analytical geometry	4	120	75	45	30	15				1	3	
15.	SPE-B05	Linear algebra	4	120	75	45	30	15				1	3	
16.	SPE-B06	Operating Systems	5	150	105	45	30	15				2	3	
17.	SPE-B07	Differential equations	6	180	120	60	30	30				3	4	
18.	SPE-B08	The Design and Analysis of Computer Algorithms	8	240	165	75	45	30				3	5	
19.	SPE-B09	Programming technologies	5	150	105	45	30	15				4	3	
20.	SPE-B10	Databases	5	150	105	45	30	15				4	3	
21.	SPE-B11.1	Numerical methods-1	5	150	105	45	30	15				3	3	
22.	SPE-B11.2	Numerical methods-2	4	120	75	45	30	15		IPF-B11.1		4	3	
23.	SPE-B12	Discrete mathematics	6	180	105	75	45	30				4	5	
24.	SPE-B13	Physics	3	90	45	45	30		15			3	3	
25.	SPE-B14	Computer Architecture	5	150	105	45	30	15				2	3	
26.	SPE-B15	Probability theory and mathematical statistics	4	120	60	60	30	30				5	4	
27.	SPE-B16	Computer networks	6	180	120	60	30	30				4	4	
28.	SPE-B17	Optimization methods	5	150	75	75	45	30				6	5	
29.	SPE-B18	Civil defense	3	90	60	30	30					6	2	
30.	SPE-B19	Artificial Intelligence	4	120	60	60	30	30				6	4	
31.	SPE-B20	Parallel and distributed computations	4	120	60	60	30	30				5	4	
32.	SPE-B21	Web technologies	4	120	75	45	30	15				5	3	
	SPEE-B00	Elective courses subjects (Vocational education)	60	1800	1275	525	315	210						
33.	SPEE-B01	Block I: 1. System programming; 2. Programming in	7	210	150	60	30	30				5	4	

		computer networks; 3. Application programming												
34.	SPEE-B02	Block II: 1. Basics of HPC; 2. Cloud computing; 3. Big Data	8	240	180	60	30	30					5	4
35.	SPEE-B03	Block III: 1. Mathematical modeling; 2. Methods of mathematical physics; 3. Computer modeling	9	270	195	75	45	30					6	5
36.	SPEE-B04	Block IV: 1. Operational research and game theory; 2. Decision-making methods; 3. Numerical solutions to optimal control problems	9	270	195	75	45	30					6	5
37.	SPEE-B05	Block V: 1. Intelligent data analysis; 2. Signal processing; 3. Pattern recognition	7	210	150	60	30	30					7	5
38.	SPEE-B06	Block VI: 1. Basics of information security; 2. Information theory and coding; 3. Security of information systems	6	180	135	45	30	15					7	5
39.	SPEE-B07	Block VII: 1. Application package; 2. Development of mobile applications; 3. Software design	8	240	165	75	45	30					7	5
40.	SPEE-B08	Block VIII: 1. Classical and fuzzy logics; 2. Technical foreign language	3	90	60	30	30						7	2
41.	SPEE-B09	Block IX: Project management	3	90	45	45	30	15					7	3
Number of training hours														
Σ			210	6300	4050	2250	1215	1020	15					

III. DURATION OF TRAINING (IN WEEKS)

Education year	Theoretical training	Examination session	Practice	Vacation	Total
I	30	10	-	12	52
II	30	10	-	12	52
III	30	10	-	12	52
IV	15	5	20	2	42
Total	105	35	20	38	198

IV. INDICATORS OF EDUCATION PROCESS

Semester	1	2	3	4	5	6	7	8	Total
	Experience								
Credits number	30	30	30	30	30	30	30	30	240
Examinations number	6	6	6	6	6	5	6		41
Hours per week	22	22	22	22	22	21	22		

Provided by:

Vice-rector for Academic Affairs, Associate Professor of ASOIU



G.A.Mammadov

Dean of the Faculty of Information Technology and Management, Associate Professor



F.H.Agayev

Head of the Department of General and Applied Mathematics, Professor



A.R.Aliyev