

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

"Approved"
 acting rector

assoc. prof. Vazeh Askarov

Specialty : 050620 – Computer engineering
 Duration of study is 4 year (8 semesters)

"21" September 2023



CURRICULUM
 (for bachelor's level)

I. SCHEDULE OF THE EDUCATIONAL PROCESS

II.

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	26	2	9	16	23	2	9	16	23	6	13	20	27	4	11	18	25	1	8	15	22	5	12	19	26	6	13	20	27	2	9	16	23
I																																																			
II																																																			
III																																																			
IV																								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

Conventional symbols

Theoretical training

Examination Session

Experience

Vacation



II. EDUCATIONAL PROCESS PLAN

Row №	Subject code	Subject Name	Credits number	Total hours	Out-of-class hours	Total hours for classroom	Auditorium hours			Course work / Course Project	Prerequisite (the disciplines that are required to be taught)	Corequisite (the disciplines with parallel learning)	Semester where the subject is taught	Weekly Workload
							Including the type of training							
							Lecture	Seminar	Laboratory					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	HS-BOO	Humanitarian subjects	30	900	480	420	105	315						
1	HS-B01	History of Azerbaijan	5	150	90	60	30	30					4	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 Azerbaijani	4	120	75	45	15	30					3	3
		Elective subjects	6	180	90	90	60	30						
5	HES-B04	Block I: 1) Philosophy 2) Sociology; 3) Consultation 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					4	3
6	HES-B05	Block II: 1) Information technology (by specialty); 2) Information management; 3) Fundamentals of Entrepreneurship and Introduction to Business; 4) Political science	3	90	45	45	30	15					3	3
	VSS-BOO	Vocational training subjects by speciality	180	5400	3585	1875	975	450	450					
			120	3600	2385	1215	615	300	300					
7	VSS-B01	Linear algebra and analytical geometry	3	90	45	45	30	15					1	3
8	VSS-B02.1	Calculus - 1	3	90	45	45	30	15					1	3
9	VSS-B02.2	Calculus - 2	4	120	60	60	30	30			VSS-B02.1		2	4
10	VSS-B03	Discrete mathematics	3	90	45	45	30	15					3	3
11	VSS-B04	Differential equations	3	90	45	45	30	15					4	3
12	VSS-B05	Probability theory and mathematical statistics	3	90	45	45	30	15					5	3
13	VSS-B06	Physics	5	150	90	60	30	15	15				3	4
14	VSS-B07	Fundamentals of computer engineering	8	240	180	60	30		30				1	4
15	VSS-B08	Fundamentals of programming	8	240	165	75	30		45				1	5
16	VSS-B09	Data structure and algorithms	6	180	120	60	30		30				2	4
17	VSS-B10	Database systems	7	210	150	60	30		30	CW			3	4
18	VSS-B11	Operating systems	8	240	180	60	30	30					4	4
19	VSS-B12	Computer networks	8	240	165	75	30	30	15				5	5
20	VSS-B13	Computer architecture	8	240	180	60	30	30					3	4
21	VSS-B14	Theory of circuits	7	210	150	60	30		30				4	4
22	VSS-B15	Fundamentals of electronics	7	210	150	60	30		30				2	4
23	VSS-B16	Digital systems	6	180	120	60	30		30				4	4
24	VSS-B17	Security of computer systems	8	240	165	75	30	30	15				7	5
25	VSS-B18	Computer graphic	5	150	105	45	15	30					2	3
26	VSS-B19	Computer modeling	7	210	135	75	30	15	30				5	5
27	VSS-B20	Civil defense	3	90	45	45	30	15					5	3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	SPEE-BOO	Elective subjects (Vocational education)	60	1800	1200	660	360	150	150					
28	SPEE-B01	Block I: 1) Big data processing technologies; 2) Analytical data processing; 3) Management of information systems	5	150	105	45	30	15					7	3
29	SPEE-B02	Block II: 1) Fundamentals of decision-making systems; 2) Knowledge engineering; 3) Computer mathematics	6	180	120	60	30	30					6	4
30	SPEE-B03	Block III: 1) Soft Computing technology; 2) System simulation; 3) Analysis of intellectual data	6	180	105	60	30	30					6	4
31	SPEE-B04	Block IV: 1) Systematic analysis; 2) Neural networks; 3) Telecommunication systems and wireless networks	4	120	120	45	30	15					7	3
32	SPEE-B05	Block V: 1) Microprocessors; 2) Computer modeling of electronic systems; 3) Digital communication	5	150	105	60	30		30				5	4
33	SPEE-B06	Block VI: 1) Object-oriented programming; 2) Modern programming languages; 3) Python programming	5	150	105	60	30		30				6	4
34	SPEE-B07	Block VII: 1) Web systems and technologies; 2) Web design; 3) PHP programming	5	150	120	60	30		30	C/W			6	4
35	SPEE-B08	Block VIII: 1) Internet of Things; 2) Sensors and actuators; 3) Cyber systems	4	120	135	45	30	15					7	3
36	SPEE-B09	Block IX: 1) Cloud technologies; 2) Mobile technologies; 3) Cybersecurity	6	180	105	60	30		30				7	4
37	SPEE-B10	X block: 1) Artificial intelligence; 2) Mobile and parallel computer systems; 3) Fundamentals of software engineering and design	6	180	60	60	30		30				6	4
38	SPEE-B11	Block XI: 1) Technical foreign language; 2) Classical and fuzzy-logic	3	90	30	30		30					5	2
39	SPEE-B12	Block XI: HOSEP (Health, occupational safety and environmental protection)	2	60	45	30	30						6	2
40	SPEE-B12	Block XII: Project Management	3	90	45	45	30	15					7	3
	Total		210	6300	4065	2295	1080	765	450					

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
Cemi	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	31	29	30	30	30	240
Examinations number	5	5	6	6	6	6	6		40
Hours per week	23	22	21	22	22	22	21		

Presented by:

Vice Rector for Academic Affairs

Dean of the Information Technology and Control Faculty

Head of "Computer Engineering" department

Mammadov
F.H.
N.A.

associate professor G.A. Mammadov

associate professor F.H.Aghayev

associate professor N.A. Rahimova