

**MINISTRY OF SCIENCE AND EDUCATION OF THE REPUBLIC OF AZERBAIJAN
NAKHCHIVAN STATE UNIVERSITY**

SUBJECT SYLLABUS



Confirmation:

**E.Y. Ibrahimov / Ph.D. in Economics,
associate professor**

Date: 10th of February, 2025

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General information	Faculty	Economics and Management				
	The specialty department of the subject	Economics and Marketing				
	Specialization (code) and course in which the subject is taught	050405, IV				
	Subject mane	Hard Skills				
	Subject code					
	General audience hour	66				
	General audience hour	5	Lecture	Seminar	Laboratory	Practical training
	Subject credit			60		
	The teaching semester of the subject	The second				
	The teaching language of the subject	English				
	Information about the teacher(s) teaching the subject	Elshan Nuraddin Nasirov				
	E-mail: Phone:	elshannasirov@ndu.edu.az (+994 50) 3580336				
Consulting hours	1 (on Fridays, at 16:00)					
Prerequisites	The name of the program					
The subject program for which the syllabus is prepared		Year		Verification information		
Used primary and additional literature	1.1. Primary: 1. Bowen, D. E. & Schneider, B, Services marketing and management: Implications for organizational behavior. Research in Organizational Behavior, 2018 2. Cedefop, Future skill supply in Europe - Medium-term forecast up to 2020, Luxembourg: Publications Office, 2020 3. George, D. & Mallery, P, SPSS for Windows step by step: A simple guide and reference. 11.0 update. 4th edition. Boston: Allyn & Bacon, 2023 4. Glenn, J. L, The “new” customer service model: Customer advocate, company ambassador. Business Education Forum, 2018 5. Hitt. M., Dacin, M., Levitas, E., Arregle, J. & Borza, A, Partner selection in emerging and developed market contexts, Academy of Management Journal, 2000.					

	1.2. Additional: 1. Hunt, S. Hiring Success: The Art and Science of Staffing Assessment and Employee Selection. San Francisco: John Wiley & Sons, 2007 2. James, R. F. & James, M. L. Teaching career and technical skills in a “mini” business world. Business Education Forum, 2014 3. Katz, R. Skills of an Effective Administrator. Harvard Business Review, 1974 4. Laker, D. R. & Powell, J. L, The Differences between Hard and Soft Skills and Their Relative Impact on Training Transfer, London, 2011 5. Lawler, E. E., Boudreau, J. W. & Mohrman, S. A. Achieving Strategic Excellence, Stanford, California: Stanford University Press, 2016
A brief description of the subject	The subject of “Hard Skills” studies technical skills required for a job. They are learned abilities acquired and enhanced through education and experience.
The purpose of teaching the	The purpose of the subject “Hard Skills” is to teach specific abilities, capabilities and skill sets that an individual can possess and demonstrate in a measured way.
Training outcomes of the subject	STO 1. Ability to explain the essence of the role of business categories and laws in economic processes. STO 2. Ability to evaluate consumer behavior by explaining the principles of operation of the elements of the market mechanism. STO 3. Ability to justify the role of utility in valuation from both theoretical and empirical points of view. STO 4. Ability to justify mutual substitution by identifying a new approach to production factors in business. STO 5. Ability to evaluate the impact of competition and monopoly on the market behavior of firms. STO 6. Ability to justify the need to regulate uncertainties arising in business.

Competency-based learning outcomes						
Competencies of the program	Training outcomes					
General competencies						
Ability to use information technologies in the workplace (GK-5)	T/o 1	T/o 2	T/o 3	T/o 4	T/o 5	T/o 6
Analyzing complex systems, identifying and understanding relationships, understanding the principles of relationships between systems in different fields and at different levels, and operating in uncertain conditions (GC-13)	T/o 1	T/o 2	T/o 3	T/o 4	T/o 5	T/o 6
Professional competencies	T/o 1	T/o 2	T/o 3	T/o 4	T/o 5	T/o 6
Ability to use project management and other commonly used software, and be able to use oral and written communication tools in business life (PC-18).	T/o 1	T/o 2	T/o 3	T/o 4	T/o 5	T/o 6
Possessing the skills to analyze, summarize, and apply relevant information for professional purposes (PC-9)	T/o 1	T/o 2	T/o 3	T/o 4	T/o 5	T/o 6

	Teaching and learning methods: (TLM)
TLM 1	Lecture:
	Relevant materials on the topics are prepared and applied in the audience as a discussion. This method is implemented directly under the supervision of the teacher.
TLM 2	Presentations:
	Presentations are made to students according to predetermined lecture topics and lecture topics are explained to students through slides.
TLM 3	Debates:
	By means of this method, team spirit is formed in students, they develop a more critical approach to issues, connections between all topics are established by means of counterarguments.
TLM 4	Assignments on the subject:

	According to this method, students are presented with appropriate tasks on topics prepared by the teacher before class time. Students are given a total of 30 minutes to solve the task. Then the answers are discussed based on the lesson. This method forms critical thinking skills in students.
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Subject program and calendar plan

For bachelor level

Subject code: Specialty code: 050405 Group number _____

№	THEMES OF SEMINARS	Relevant learning outcome	TLM	Hours	Date	Notes
1	Topic № 1. Introduction to the subject 1. Definition of Hard Skills. 2. Problem solving. 3. Communication skills. 4. Adaptability. 5. Critical thinking. 6. Time management. 7. Interpersonal skills. 8. Microsoft Excel, typing, copywriting and computer programming. 9. Leadership. 10. Search engine optimization. 11. Budgeting in project management. Literature: 1.1. [1. p. 23-46], 1.1. [2. p. 14-26], 1.2. [3. p. 44-78]	T/o 1	TLM 1 TLM 2 TLM 3	4		
2	Topic № 2. Hard skills for management 1. Agile methodology and software. 2. Budget planning. 3. Delegation in management. 4. Mentoring and training in management. 5. Planning in management. 6. Procurement in management. 7. Product lifecycle management. 8. Project management. 9. Risk management. Literature: 1.1. [5. p.13-33], 1.2. [3. p. 16-49], 1.2. [4. p. 11-19]	T/o 1 T/o 2	TLM 3 TLM 4	4		
3	Topic № 3. Content creation 1. Academic writing. 2. Blackmagic Resolve. 3. Content writing. 4. Corel Draw. 5. Creative writing. 6. Ghostwriting. 7. Illustrator. 8. InDesign. 9. Photoshop. 10. Proofreading. 11. Report writing. Literature: 1.2. [4. p. 34-78], 1.1. [3. p. 12-67]	T/o 3	TLM 1 TLM 2 TLM 3	4		
4	Topic № 4. Social media hard skills 1. A/B testing. 2. Automation. 3. Email marketing. 4. Facebook. 5. Google Analytics. 6. Instagram. 7. LinkedIn. 8. Marketing analytics tools. 9. TikTok. 10. Twitter. 11. User modelling.	T/o 2 T/o 4 T/o 6	TLM 1 TLM 2 TLM 3	4		

	Literature: 1.1. [8. p. 13-19], 1.1. [9. p. 11-24], 1.1. [10. p. 22-48]					
5	Topic № 5. Marketing hard skills 1. CMS tool knowledge. 2. Content marketing. 3. Copywriting in marketing. 4. CRM tool knowledge. 5. CRO in marketing. 6. Data visualisation. 7. Email marketing (Mailchimp, etc). 8. Salesforce Pardot. 9. SEM in marketing. 10. SEO in marketing.	T/o 5	TLM 1 TLM 2 TLM 4	4		
	Literature: 1.2. [5. p. 12-14], 1.2. [2. p. 34-38], 1.2. [4. p.13-28]					
6	Topic № 6. Sales skills 1. Closing sales. 2. CRM software. 3. Customer need analysis. 4. General marketing skills. 5. Identifying new opportunities. 6. Lead qualification. 7. Objection handling. 8. Presentation in sales. 9. Product knowledge and demo. 10. Providing hard advice. 11. Relationship building. 12. Understanding of prospect roles and influence.	T/o 6	TLM 2 TLM 3 TLM 4	4		
	Literature: 1.2. [3. p. 12-14], 1.2. [5. p. 13-17], 1.2. [4. p. 12-17]					
7	Topic № 7. Language skills 1. Speaking, listening, reading and writing. 2. Listen to the different types of content. 3. Improving your fluency. 4. Recording your conversations. 5. Maintaining a list of unfamiliar words and their meanings.	T/o 1 T/o 3	TLM 1 TLM 4	4		
	Literature: 1.1. [2. p. 12-14], 1.2. [4. p. 12-24], 1.1. [5. p. 11-18]					
8	Topic № 8. Hard skills for IT 1. Algorithms. 2. Applications. 3. Artificial intelligence. 4. Blockchain. 5. Cloud computing. 6. Coding. 7. Configuration. 8. Cybersecurity. 9. Internet of things (IoT). 10. IOS/Android. 11. Machine learning. 12. Mobile development. 13. Networking and wireless. 14. Virtual reality.	T/o 2 T/o 3 T/o 6	TLM 1 TLM 2 TLM 3	4		
	Literature: 1.1. [4. p. 12-43], 1.2. [1. p. 16-22], 1.1. [5. p. 36-39]					
9	Topic № 9. Programming skills 1. AJAX. 2. ASP.NET. 3. C/C++. 4. CSS. 5. HTML. 6. Java. 7. JavaScript. 8. Perl. 9. PHP. 10. Python.	T/o 2 T/o 3	TLM 3 TLM 4	4		

	Literature: 1.1. [3. p. 12-22], 1.2. [4. p. 4-8], 1.2. [5. p. 22-38]					
10	Topic № 10. Analytical skills and data science 1. Business analysis. 2. Data entry. 3. Data processing. 4. Database management. 5. Deductive reasoning. 6. Forecasting. 7. Mathematical skills. 8. Unstructured data analysis.	T/o 4 T/o 5 T/o 6	TLM 1 TLM 2	4		
	Literature: 1.1. [3. p. 12-40], 1.2. [1. p. 22-28], 1.3. [4. p. 1-10]					
11	Topic № 11. Database management 1. Relational DBMS (RDBMS). 2. Hierarchical DBMS. 3. Network DBMS. 4. Object-Oriented DBMS (OODBMS). 5. MySQL. 6. Microsoft SQL Server. 7. Oracle DBMS. 8. IBM DB2.	T/o 2 T/o 3 T/o 4	TLM 2 TLM 3 TLM 4	4		
	Literature: 1.1. [5. p. 3-4], 1.1. [3. p. 7-16], 1.1. [4. p. 3-8]					
12	Topic № 12. Banking Skills 1. Strong financial analysis. 2. Risk assessment skills. 3. Capacity and contribution. 4. Common sense and control. 5. Customer service. 6. Bank teller CV skills.	T/o 3 T/o 4	TLM 3 TLM 4	4		
	Literature: 1.2. [3. p. 16-24], 1.2. [4. p. 12-16], 1.1. [3. p. 22-34]					
13	Topic № 13. Precision in task executing 1. Creation of plan. 2. Improving your execution skills. 3. Setting goals. 4. Encouraging teamwork. 5. Resolving conflicts. 6. Holding yourself accountable. 7. Providing resources. 8. Giving feedback.	T/o 1 T/o 2 T/o 3	TLM 1 TLM 2 TLM 4	4		
	Literature: 1.2. [5. p. 11-14], 1.2. [4. p. 16-19], 1.1. [5. p. 30-38]					
14	Topic № 14. Researching skills 1. Perseverance in researching. 2. Critical and analytical thinking. 3. Collaboration in researching. 4. Effective communication. 5. Organizational skills. 6. Observing and classifying. 7. Communicating skills. 8. Measuring, inferring and predicting.	T/o 3 T/o 4 T/o 6	TLM 1 TLM 4	4		
	Literature: 1.1. [5. p. 15-35], 1.1. [2. p. 14-22], 1.2. [4. p. 12-33]					
15	Topic № 15. Idea and information documenting 1. Using an ideation framework. 2. Using a digital tool. 3. Using a template. 4. Using a visual aid. 5. Using a naming convention. 6. Using a feedback loop. 7. Add your personal experience.	T/o 3 T/o 4 T/o 6	TLM 1 TLM 4	4		
	Literature: 1.1. [5. p. 15-35], 1.1. [2. p. 14-22], 1.2. [4. p. 12-33]					
Total				60		

Rules:	
The requirement for organizing a lecture class:	
✓	General information related to the subject (syllabus, lecture texts, slides, video files and other theoretical training materials) must be delivered to students through the LMS portal within the first 10 days of the beginning of the educational process.
Requirements for the organization of a workshop (seminar) class:	
✓	When organizing classes (seminars), different teaching methods should be used. These methods should promote a student-centered approach and the active role of the student in the learning process. Teaching and learning methods that can be used are reflected in the Teaching and Learning section (Section 4) of the educational programs of each specialty.
✓	During the seminar sessions, students' mastery of the previous topic should be evaluated in each lesson by conducting an oral and written survey.
✓	At the end of the semester, the joint grade of the students for the workshop (seminar) lesson should be calculated (Activity).
The requirement for performing free works (individual):	
Subjects and submission dates of the free work (the free work can consist of a single topic, provided that the topic covers 70% of the content of the subject).	
During the semester, the completion of free (individual) topics must be given by the student in the form of presentations. No more than 15 minutes should be allocated to the discussion of free work. The presentation itself (presentation) must be submitted in electronic and printed version.	
Requirements for holding colloquiums:	
3 colloquiums are held during the semester. Depending on the topic, the teacher can freely choose the form of the colloquiums (oral, written, quiz, comparison table, etc.).	

Assessment and distribution of points during the semester:	Maximum points earned during the semester	50 points
	For class attendance. Attendance requirements. The maximum score for class attendance is 10 points. The amount of points is usually 10 points if the student attends all classes in the subject during the semester. During the semester, 1 point is deducted for every 10% of the hours allocated to teaching the subject. If the total number of hours of lessons missed during the semester for all subjects exceeds the limit specified in the normative documents, the student is not admitted to the exam session and a certain decision is made about him (her).	10 points
	Maximum points for free work of students	10 points
	According to the results of the seminar (exercise) or laboratory lessons (in the case that both seminar, practical (exercise) and laboratory lessons are planned for the same subject, a maximum of 10 points is allocated to each of them). Maximum 30 points in total). If there are no practical and laboratory exercises, the seminar score is evaluated with a maximum of 30 points based on the appropriate assessment.	30 points
Assessment according to semester exam	The form of the exam can be written, oral, practical or test	
	There are 5 questions in each ticket. A maximum of 10 points is awarded to each question By electronic test method - 50 tests Each test - a maximum of 1 point. Note: The student's score in the exam should not be less than 17.	

Final assessment	The student's final knowledge is evaluated with a maximum of 100 points. The maximum 50 points the student collects during the semester, and the maximum 50 points in the exam. According to the final amount of points collected during the semester for the subject, the student's knowledge is evaluated according to the European Credit Transfer System (ECTS) as follows:			
	91-100 points	excellent	A	
	81-90	very Good	B	
	71-80	good	C	
	61-70	enough	D	
	51-60	satisfactory	E	
	Less than 51	insufficient	F	
Violation of the rules of conduct	If a student violates the internal disciplinary rules of the university, measures are taken in accordance with the regulations of the university.			

Assessment reliability of training outcomes							
№	Exam Questions	Training outcomes					
		1	2	3	4	5	6
1	Definition of Hard Skills.	+					
2	Problem solving.	+	+				
3	Communication skills.		+	+			
4	Adaptability.			+			
5	Critical thinking.			+			
6	Time management.				+		
7	Interpersonal skills.				+		
8	Microsoft Excel, typing, copywriting and computer programming.				+		
9	Leadership.				+		
10	Search engine optimization.			+	+		
11	Budgeting in project management.			+			
12	Agile methodology and software.			+		+	
13	Budget planning.			+		+	
14	Delegation in management.			+		+	
15	Mentoring and training in management.			+		+	
16	Planning in management.			+			+
17	Procurement in management.						+
18	Product lifecycle management.		+				+
19	Project management.		+				+
20	Risk management.		+				+
21	Academic writing.		+				+
22	Blackmagic Resolve.						+
23	Content writing.		+				
24	Corel Draw.		+	+			
25	Creative writing.			+			
26	Ghostwriting.			+			
27	Illustrator.			+			
28	InDesign.			+			

29	Photoshop.			+			
30	Proofreading.			+			
31	Report writing.			+	+	+	
32	Social media hard skills			+	+	+	
33	A/B testing.			+	+	+	
34	Automation.			+	+	+	
35	Email marketing.		+	+	+	+	
36	Facebook.		+	+	+		
37	Google Analytics.		+	+	+		
38	Instagram.	+	+				
39	LinkedIn.	+					
40	Marketing analytics tools.	+					
41	TikTok.	+				+	
42	Twitter.	+				+	
43	User modelling.	+				+	+
44	Marketing hard skills	+					+
45	CMS tool knowledge.						+
46	Content marketing.						+
47	Copywriting in marketing.						+
48	CRM tool knowledge.						+
49	CRO in marketing.						+
50	Data visualisation.				+		+
51	Email marketing (Mailchimp, etc).				+		
52	Salesforce Pardot.				+		
53	SEM in marketing.			+	+		
54	SEO in marketing.	+		+	+		
55	Closing sales.	+		+			
56	CRM software.	+		+			
57	Customer need analysis.	+					
58	General marketing skills.	+					
59	Identifying new opportunities.	+					
60	Lead qualification.	+					
61	Objection handling.	+			+	+	
62	Presentation in sales.	+			+	+	
63	Product knowledge and demo.				+	+	
64	Providing hard advice.				+	+	
65	Relationship building.				+	+	
66	Understanding of prospect roles and influence				+	+	
67	Language skills					+	+
68	Speaking, listening, reading and writing.					+	+
69	Listen to the different types of content.					+	+
70	Improving your fluency.		+	+		+	+
71	Recording your conversations.		+	+			
72	Maintaining a list of unfamiliar words and their meanings.		+	+			
73	Hard skills for IT	+	+				

74	Algorithms.	+	+				
75	Applications.	+	+				
76	Artificial intelligence.	+	+				
77	Blockchain.	+	+				
78	Cloud computing.	+	+				
79	Coding.	+	+	+	+		
80	Configuration.			+	+		
81	Cybersecurity.			+	+		
82	Internet of things (IoT).			+	+		
83	IOS/Android.			+	+	+	
84	Machine learning.			+	+	+	
85	Mobile development.					+	
86	Networking and wireless.					+	
87	Virtual reality.					+	
88	Programming skills					+	
89	AJAX.					+	
90	ASP.NET.					+	
91	C/C++.					+	
92	CSS.				+	+	+
93	HTML.				+	+	+
94	Java.				+	+	+
95	JavaScript.				+	+	+
96	Perl.				+	+	+
97	PHP.				+	+	+
98	Python.				+	+	+
99	Analytical skills and data science				+	+	+
100	Business analysis.				+	+	+
101	Data entry.				+	+	+
102	Data processing.				+	+	+
103	Database management.	+			+	+	+
104	Deductive reasoning.	+					
105	Forecasting.	+					
106	Mathematical skills.	+					
107	Unstructured data analysis.		+	+	+		
108	Database management		+	+	+		
109	Relational DBMS (RDBMS).				+	+	
110	Hierarchical DBMS.				+	+	
111	Network DBMS.				+	+	
112	Oriented DBMS (OODBMS).				+	+	
113	MySQL.				+	+	
114	Microsoft SQL Server.				+	+	
115	Oracle DBMS.				+	+	
116	IBM DB2.		+	+	+	+	
117	Banking Skills		+				

118	Strong financial analysis.		+				
119	Risk assessment skills.		+				
120	Capacity and contribution.		+				
121	Common sense and control.		+				
122	Customer service.		+				
123	Bank teller CV skills.		+		+		
124	Precision in task executing				+		
125	Creation of plan.				+		
126	Improving your execution skills.				+		
127	Setting goals.				+		
128	Encouraging teamwork.				+		
129	Resolving conflicts.				+		
130	Holding yourself accountable.					+	+
131	Providing resources.					+	+
132	Giving feedback.					+	+
133	Researching skills					+	+
134	Perseverance in researching.					+	+
135	Critical and analytical thinking.					+	+
136	Collaboration in researching.					+	+
137	Effective communication.					+	+
138	Organizational skills.					+	+
139	Observing and classifying.					+	+
140	Communicating skills.			+	+		
141	Measuring, inferring and predicting.			+			
142	Idea and information documenting			+			
143	Using an ideation framework.						
144	Using a digital tool.		+	+			
145	Using a template.	+	+				
146	Using a visual aid.				+	+	
147	Using a naming convention.				+	+	
148	Using a feedback loop.				+	+	
149	Add your personal experience.					+	+
150	Delphi and Visual Basic		+	+		+	+

Evaluation of the teaching results of the subject:

Assessing the outcomes of the subject taught to students involves assessing not only students' knowledge, but also their skills, understanding and application of the material. Different forms of assessment are taken into account here and students are assessed in the following ways:

1. Exams and tests: Midterm exams, midterms, and final exams: Traditional written assessments measure students' understanding of key concepts and their ability to recall information.
2. Research Papers and Essays: Helps assess students' ability to conduct research, analyze data, and communicate effectively.
3. Participation in class discussions: Assess the extent to which students actively contribute to class discussions, ask questions, and engage with the material.
4. Group activities: Assess cooperation and teamwork skills through group projects or presentations.
5. Homework: Regular assignments can provide ongoing feedback on student progress.
6. In-Class Assessments: Quick question-and-answer assessments during class time to gauge understanding.
7. Demonstrations or presentations: To assess communication and presentation skills.

Lecturer: _____ **Elshan Nuraddin Nasirov**

Seminar teacher: _____ **Elshan Nuraddin Nasirov**

Head of Department: _____ **Eltun Yulat Ibrahimov / Ph.D. in Economics, associate professor**

**Work-study program (syllabus) was discussed and approved at the meeting of the Department
on 6th of February, 2025 (Protocol No. 9)**

**Work-study program (syllabus) was approved at the meeting of the Scientific Council of the Faculty
on 7th of February, 2025 (Protocol No. 6)**

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