

Identification	Subject	DSN417, Ergonomics, 6 ECTS
	Department	Architecture and design department
	Program (Undergraduate, Graduate)	Undergraduate
	Term	Fall 2025
	Instructor	Mustafayeva Aygun
	Email:	aygun.mustafayeva@khazar.org
	Classroom/hours	Neftchiler campus
Prerequisites	-	
Language	English	
Compulsory/Elective	Elective	
Textbooks and course materials	<ol style="list-style-type: none"> 1. Teaching of ergonomics in the design environment V.F. Runge, Y.P. Manusevich. Moscow. "Architecture - S". 2008 2. Ergonomics and Labor Processes, Z.A. Malayev, Azerbaijan State University of Economics, Ministry of Education of the Republic of Azerbaijan. Baku-2018. 3. Advances in Ergonomics In Design, Usability & Special Populations Part II. 20014. 4. Ergonomics and Design A Reference Guide. 2006 Allsteel Inc. 	
Course description	<p>This course is designed to familiarize students with the essence, purpose, and objectives of ergonomics, as well as its focus on the study of the human factor.</p> <p>The primary function of ergonomics is to improve performance by enhancing employee health and occupational safety. This is achieved by organizing work in accordance with the physical and psychological characteristics of people, allowing them to work efficiently, safely, and in good health.</p> <p>It ensures that tools, equipment, and workplaces are designed to meet the needs and abilities of the people who use them.</p>	
Course objectives	<p>Ergonomics is a scientific discipline that studies the functional capabilities of humans in both work and everyday life. It defines the requirements for creating optimal conditions that ensure effective daily activity and highly productive work.</p> <p>The course is designed to familiarize students with the essence, purpose, and objectives of ergonomics, as well as its focus on studying the human factor.</p> <p>The primary function of ergonomics is to enhance performance by improving employee health and occupational safety. This is achieved by organizing work in accordance with the physical and psychological characteristics of people, enabling them to work efficiently, safely, and in good health.</p>	

	The main goal of ergonomics is to improve the design of products, systems, and environments to optimize their safety, efficiency, and usability. It ensures that tools, equipment, and workplaces are designed to match the needs and abilities of the people who use them.		
Learning Outcomes	<p>In the process of studying this subject, students are expected to acquire the following knowledge and skills:</p> <p>They should know:</p> <ul style="list-style-type: none"> • The methodological foundations of ergonomics; • General information on ergonomic design; • The concept of the “human–machine–environment” connection; • Interactions between external and internal elements within the “human–machine–environment” system; • Methods of performing ergonomic analysis; • Ergonomic normative rules and standards; • Application of ergonomic norms in the fields of design and architecture. <p>They should be able to:</p> <ul style="list-style-type: none"> • Evaluate the ergonomic safety of design and architectural projects, understand the factors that integrate ergonomics with design, and develop collaborative approaches; • Apply methods for determining the ratio between the static and dynamic dimensions of the human body and technical devices; • Analyze the organization of the work environment, including data display tools, visual information systems, light–color solutions in production facilities, and environmental factors. 		
Teaching methods	Case analysis		x
	Group discussion		x
	Lecture		x
	Simulation		x
Evaluation Criteria	Methods	Date/deadlines	Percentage (%)
	Attendance		5
	Assignment		15
	Midterm exam	TBA	30
	Activity		15
	Final exam	TBA	35
	Final		100
Class Policy	<p>Lecture, seminar, presentation</p> <p>Lectures on ergonomics will be given by the subject teacher, and lectures and assignments will be processed in relevant design programs. Tasks will be performed based on the selected topic. In addition to discussing the solution of the tasks with the teacher, the students will also put their theoretical knowledge into practice. Students will present their individual projects at the end of the</p>		

<p>course.</p> <p>It will be evaluated in the midterm (30 points) and final (35 points) exam.</p> <p>The project must be submitted by the student. The project must be submitted during the months of September and October before the midterm exam. No additional time is allowed to submit after the last week of classes.</p> <p>Homework assigned to the student will be checked each lesson and 1 point will be given for each completed task. At the end of the semester, this will be evaluated as a minimum of 0 and a maximum of 15 points.</p> <p>Exception: If the student informed the dean of the faculty in advance that he/she will not be able to participate in the handover phase of the work due to valid reasons (related to family situation and health), or if he/she has submitted any related document (application or reference), only in this case the student will be able to attend after the deadline. can hand over the work.</p> <p>Attendance:</p> <p>The maximum score for class attendance is 5 points. The number of points is based on: if the student attends all classes in the subject during the semester, he is given 5 points. If the total number of lessons missed during the semester for the subject exceeds the prescribed limit of 25% (illness, family situation, etc.), the student is not admitted to the exam session and a certain decision is made about him.</p> <p>Exams:</p> <p>The mid-term exam will be held on subjects taught in September and October (after the project is handed over), and the final exam will be held on subjects taught in November and December (after the project is handed over).</p> <p>The procedure for completing the subject.</p> <p>The student's knowledge is evaluated with a maximum of 100 points. An overall success rate of 60% and above is considered to complete the course. A student with a deficit can take this subject again in the next semester or the next year.</p> <p>Rules of conduct of the student.</p> <p>A student is not allowed to violate the University's internal disciplinary rules and use a mobile phone. It is forbidden to violate the educational process and ethical rules during the lesson. Unauthorized discussions between students are also prohibited during class.</p>			
Tentative Schedule			
Week	Date	Topics	Textbook/Assignments
1.		Basics of ergonomics.	Runge & Manusevich (2008), s. 1–25; Malayev (2018), s. 5–

			20 Presentation №1
2.		Incense stages of ergonomics. Excerpt from the field. The effect is the study of the region.	Runge & Manusevich (2008), s. 26–48; Malayev (2018), s. 21–35 Presentation №2
3.		Determinants of ergonomic requirements	Ergonomics and Design (2006), s. 1–30; Malayev (2018), s. 36–50 Presentation №3
4.		Ergonomic assessments of workplace parameters	Runge & Manusevich (2008), s. 49–72; Malayev (2018), s. 51–70 Presentation №4
5.		Ergonomics and the provision of different types of environments.	Ergonomics and Labor Processes (2018), s. 71–95; Advances in Ergonomics (2014), s. 15–35 Presentation №5
6.		Tools of ergodesign in environmental planning. Ergonomic program for residential environment design.	Runge & Manusevich (2008), s. 73–100; Ergonomics and Design (2006), s. 31–55 . Presentation №6 Repetition and discussion of topics.
7.		Midterm exam	
8.		Tasks of ergodesign in environmental design.Ergonomic program of living environment design.The main equipment elements that ensure the completeness of the environment.Ergonomic requirements for furniture.Habitat equipment.The object complex of the living environment. Ergonomic assessment of kitchen equipment.Bathroom equipment.Designing the environment for the child.	Ergonomics and Design (2006), s. 56–95; Malayev (2018), s. 96–120 Presentation №7-8
9.		Furnishing of interiors of public buildings. Organization of the workplace and arrangement of furniture in the office. Equipping school and pre-school institutions with equipment.	Runge & Manusevich (2008), s. 101–125; Malayev (2018), s. 121–145 Presentation №9
10.		Ergonomics of the living environment of the elderly and disabled.	Advances in Ergonomics (2014), s. 36–65; Malayev

		Ability to work. Types and causes of disability. Ergonomics requirements for the urban environment, taking into account the needs of the elderly and the disabled. Organization of a comfortable environment for disabled children.	(2018), s. 146–170 Presentation №10
11.		Ergonomic aspects of environment design and perception. Visual environment and vision physiology.	Runge & Manusevich (2008), s. 126–150; Ergonomics and Design (2006), s. 96–120 Presentation №11
12.		Ergonomics of perception of environmental objects and systems. Interaction of perception and information. The role of "gestalts" in perception processes. Perspective "stereotypes". Visual distortions.	Advances in Ergonomics (2014), s. 66–88; Runge & Manusevich (2008), s. 151–170 Presentation №12
13.		Formation of architectural prototypes as a means of environment recognition. Image perception problem in architecture.	Ergonomics and Labor Processes (2018), s. 171–190; Runge & Manusevich (2008), s. 171–185 Presentation №13
14.		Ergonomics and educational system environment design.	Advances in Ergonomics (2014), s. 89–105; Malayev (2018), s. 191–210 Presentation №14
15.		Differentiation of conditions in the environmental system from the perspective of ergonomic design approach.	Runge & Manusevich (2008), s. 186–200; Ergonomics and Design (2006), s. 121–135 Presentation №15 Repetition and discussion of topics.
Final Exam			

Təsdiq edir: Dos. Abbasova Ş.A.
Memarlıq və dizayn departamentinin müdiri