Applied Kinesiology. Introduction to AK. **Comprehensive testing and evaluation of trunk and leg muscle chains**.

1. **Annotation**: The purpose of the subject is to introduce holistic personal assessments. Students will become familiar with manual muscle testing. They will assess and differentiate damaged muscles or muscle groups and will comprehensively correct the muscle chains of the trunk and limbs.

2. **Scope in credits and hours**:

Scope in credits	Theoretical sessions, hours	Practical sessions, hours	Independent work, hours	Total hours	Evaluation
5	11	16	103	130	Cumulative

3. **Required preparation for the subject studies**: The following subjects must be completed before the course: anatomy, physiology, basics of kinesiology.

4. **Linking study program results with expected subject results and evaluation methods**:

Study Program Results	Expected Subject Results	Study Methods	Student Achievement Evaluation Methods
1. To examine and assess the functional condition and independence of a person, identify disrupted activities according to normative documents, laws, etc.	1.1. Perform manual muscle testing.	Lecture, targeted discussions, demonstrations, observation, group work method, theoretical and practical solutions of clinical situations, brainstorming, literature work.	Interim assessments (tests), practical tasks, final project.
	1.2. Identify disrupted muscle chains.		
2. To assess the individual as a physical and social whole, developing creative and practical skills.	2.1. Perform a comprehensive functional muscle chain test and evaluation.		
	2.2. Differentiate disrupted muscles or groups.		
	2.3. Correct disrupted muscle chains comprehensively.		

5. **Subject plan**:

No.	Topic and Evaluation Title	Contact Hours		Independent Work, hours	Total Hours
		Theory	Practice		
1	Holistic approach to the human being. Functional unity of structural, emotional, and biochemical processes in the human body. "Tensegrity" system.	1		5	6
2	Concept of functional unity of movement stereotype: agonist, antagonist, synergist, neutralizer, stabilizer muscles.	1		6	7
3	Manual muscle testing.	1	2	6	9
4	Formation of the principle of muscle injury. Development of myofascial pain syndromes due to non-optimal myofascial static and dynamics. Understanding muscle and tendon body chains. Overload of muscle-tendon complexes as a result of muscle imbalance.	1		6	7
5	Main types of myofascial imbalance (trigger points, fascial shortening, inter-fascial adhesions). General principles of myofascial chain (MFC) formation. Identification of MFC dysfunctions and significant locations.	1	2	6	9
6	MFC muscles – indicators and provocateurs. Chain provocation (tension of muscles forming the chain). Identification of MFC dysfunctions.	1	2	6	9
7	Anterior superficial trunk and leg chain.	1	2	8	11
8	Posterior superficial trunk and leg chain.	1	2	8	11
9	Lateral trunk and leg chain.	1	2	8	11
10	Spiral trunk and leg chain.	1	2	8	11
11	Anterior deep trunk and leg chain.	1	2	8	11
12	Final project.			28	28
13	Exam.				
	Total	11	11	16	130

6. **Practical session topics**:

    1. Manual muscle testing.
    2. Main types of myofascial imbalance (trigger points, fascial shortening, inter-fascial adhesions).
    3. MFC muscles – indicators and provocateurs. Chain provocation (tension of muscles forming the chain). Identification of MFC dysfunctions.
    4. Anterior superficial trunk and leg chain.
    5. Posterior superficial trunk and leg chain.
    6. Lateral trunk and leg chain.
    7. Spiral trunk and leg chain.
    8. Anterior deep trunk and leg chain.

7. **Study achievement evaluation system – cumulative evaluation**:

Theoretical Sessions		**Practical Sessions**		**Final Project**		**Exam**	
Evaluation Method	Points	Evaluation Method	Points	Evaluation Method	Points	Cumulative method	Points
Questionnaire	1	Practical work	3	Preparing the content of the presentation. Its essence. Presentation quality	6	Overall grade	
Total	**1**	**Total**	**3**	**Total**	**6**	**Total**	**10**
Total 10 points							

Cumulative grade = ∑ (theory x 0.1 + practice x 0.3 + final project x 0.6).

8. **Attendance**: Attendance at practical sessions is mandatory.

9. **Required material resources and a brief description**: Physiotherapy room, couches, rollers, fixation straps, lecture hall, multimedia, computer.

Literature and other information sources:

No.	**Year of Publication**	**Author(s) and Title**	**Publisher and Place**	**Library Code**	**Other Resources (methodical cabinets, databases, etc.)**
Main Literature	2020	Thomas W. Myers. Anatomy Trains: Myofascial Meridians for Manual and Movement Therapists.			

No.	Year of Publication	Author(s) and Title	Publisher and Place	Library Code	Other Resources (methodical cabinets, databases, etc.)
Additional Literature	2023	Kendall, FP., Elizabeth Kendall E., McCreary, Provance PG., Rodgers MMcI. Muscles: Testing and Function, with Posture and Pain.			
	2016	DeStefano L. Greenman's Principles of Manual Medicine.			
Periodicals		The Lancet			
		Physiotherapy Theory and Practice			
Subscribed Databases					
Other Resources		www.kinesiology.net			

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