

İndirilme Tarihi

16.09.2026 12:11:00

FZT205 - Kinesiology - Kozaklı Meslek Yüksekokulu - Terapi ve Rehabilitasyon Bölümü

General Info

Objectives of the Course

The aim of this course is to explain movement and the structures and mechanics involved in movement, to explain tissue responses to stress and pathological changes, to interpret the relationship between mechanical principles and movement, to describe normal gait characteristics and analyses, to list the changes observed in pathological gait, and to develop the ability to distinguish them in design. The aim is to learn how to integrate mechanical principles with physiotherapy and rehabilitation approaches, and to develop research planning and execution skills.

Course Contents

Basic kinesiological concept, basic biomechanical principles of the musculoskeletal system and functional anatomy, kinesiological characteristics of joints, motion analysis, posture, normal and pathologic gait will be covered in this course.

Recommended or Required Reading

Şener, G., & Erbahçeci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.

Planned Learning Activities and Teaching Methods

Discussion, Explanation, Problem Solving

Recommended Optional Programme Components

Does not exist.

Instructor's Assistants

Does not exist.

Presentation Of Course

Face to face

Dersi Veren Öğretim Elemanları

Inst. Bayram Can Doğan Inst. Merve Türkoğlu

Program Outcomes

1. Can define the subjects within the scope of kinesiology (concept of movement, structures such as muscles, joints, bones, etc.).
2. Can define the functional kinesiology of the upper-lower extremities and the vertebral column.
3. Define the phases of gait and pathological gait types.

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
1	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Introduction to kinesiology	
2	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Bone tissue mechanics, laws of bone and loading principles	
3	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Muscle tissue mechanics, muscle contraction	
4	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Collagen Tissue, Ligament and Tendon Mechanics	
5	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Fatigue and contractures	
6	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Cartilage and joint mechanics	
7	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.			Columna vertebralis biyomekaniği	
8			Lecture, Discussion, Question and Answer	midterm exam	
9	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Lower extremity biomechanics	
10	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Lower extremity biomechanics	
11	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Upper extremity biomechanics	
12	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Upper extremity biomechanics	
13	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	Kinematics of walking	
14	Sener, G., & Erbahceci, F. (2020). Kinesiology and Biomechanics. Hippocrates Bookstore. Neumann, D. A. (2018). *Musculoskeletal kinesiology: Fundamentals for rehabilitation* (3rd ed.; trans. Y. Yakut). Hippocrates Bookstore.		Lecture, Discussion, Question and Answer	pathological gait	
15				Final Exam	

Assesments

Activities	Weight (%)
Ara Sınav	40,00
Final	60,00