



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Physical Therapy Department

P.T208 Kinesiology(Lab)

Second Semester 2023-2024

Course Catalog

1 Credit Hours. This course will focus on the practical aspects of the kinesiology course to help students understanding and comprehending the joint motion during simple and complex activities. This course will focus on identifying, analyzing, and performing all the joints' motions, different types of muscle contractions, active and passive muscle insufficiency, and open and closed chain exercises. Additionally, this course will focus on identifying the articulating bones and structures, primary movers of each joint. Additionally, the course will help student to identify the arthrokinematics associated with osteokinematics including the spine joints. The course will focus on analyzing simple to complex joint movements including gait. This course will also focus on identify the normal and abnormal motion pattern of the spine and extremities. Furthermore, the course will explain different exercises programs and identify different considerations of exercise performance. This course is giving as two practical hours per week.

Teaching Method: On Campus

Text Book

Title	Kinesiology of the Musculoskeletal System, Foundation for Rehabilitation.
Author(s)	Donald A. Neumann,
Edition	3rd Edition
Short Name	Ref 1
Other Information	2017

Instructor

Name	Dr. Zakariya Nawasreh
Office Location	Medical Building M5, L-4
Office Hours	
Email	zhnawasreh@just.edu.jo

Class Schedule & Room

Section 1: Lecture Time: Sun : 13:30 - 15:30 Room: LAB
Section 2: Lecture Time: Mon : 09:30 - 11:30 Room: LAB
Section 3: Lecture Time: Mon : 11:30 - 13:30 Room: LAB
Section 4: Lecture Time: Mon : 13:30 - 15:30 Room: LAB
Section 5: Lecture Time: Tue : 13:30 - 15:30 Room: LAB
Section 6: Lecture Time: Wed : 09:30 - 11:30 Room: LAB
Section 7: Lecture Time: Wed : 11:30 - 13:30 Room: LAB
Section 8: Lecture Time: Wed : 13:30 - 15:30 Room: LAB
Section 9: Lecture Time: Thu : 08:30 - 10:30 Room: LAB
Section 10: Lecture Time: Thu : 13:30 - 15:30 Room: LAB

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction to kinesiology lab	From Ref 1
Week 2	Body positions and movement	From Ref 1
Week 3	Osteokinematics and arthrokinematics	From Ref 1
Week 4	Open and close packed positions	From Ref 1
Week 5	Type of muscle contractions	From Ref 1
Week 6	Biodex machine for muscle contractions	From Ref 1
Week 7	Active and passive insufficiency	From Ref 1
Week 8	Open and close kinetic chain	From Ref 1
Week 9	Spine	From Ref 1
Week 10	Exercise analysis	From Ref 1
Weeks 11, 12, 13	Gait 1	From Ref 1

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Demonstrate knowledge of different body positions. [1PLO1 -K1]	5%	
Demonstrate knowledge of joints motions, planes of motions, axes of rotations, and open and closed packed positions for each joint. [1PLO1 -K1]	10%	
Explain the types of muscle contractions and muscle roles during joint movements [1PLO1 -K1]	10%	
Perform different muscle contraction for different joint. [1PLO6-S3]	15%	
Perform analysis for complex activities and muscle testing using dynamometer. [1PLO6-S3]	15%	
Preform motion analysis of different activities using Vicon Camera [1PLO6-S3]	15%	
Analysis normal and pathological joint movement and gait patterns and identify the contributing factors for abnormality [1PLO3-C3]	30%	

Relationship to Program Student Outcomes (Out of 100%)															
PLO1-K1	PLO2-C3	PLO3-C3	PLO4-S1	PLO5-S2	PLO6-S3	PLO7-S3	PLO8-C3	PLO9-C2	PLO10-C1	MS_PLO1_K1	MS_PLO2_K2	MS_PLO3_K3	MS_PLO4_S1	MS_PLO5_S2	MS_PLO6_C1
25		30			45										

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