AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Kinesiology							
Course Code		FZ104		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To gain knowledge about the biomechanics of various tissues and joints.							
Course Content		Definition of kinesiology, Kinesiology topics, Types of motion and movement, general mechanical principles, Development of bone tissue, nutrition of bone tissue, bone cells, physiological properties and principles, Stresses on bone, functional adaptation of bone to pathological conditions, structure, properties mechanics and pathokinetics of cartilage, muscle and collagen tissue, Classification of body joints, synovial joints and their characteristics, Joint cohesion, movements in joints according to the planes, Sliding and swinging motion, levers, balance, orientation planes and coordinates, Normal and pathological gait, Mechanics and pathomechanics of columna vertebralis, Scoliosis pelvic-hip-knee-ankle and foot mechanics and pathomechanics, Shoulder-arm complex, elbow, wrist and hand mechanics and pathomechanics.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)		Ins. Fatma Nur ALTIN							

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Kinesiology of Musculoskeletal System, Prof. Dr. Yavuz Yakut

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition of kinesiology, Kinesiology topics
2	Theoretical	Types of motion and movement, general mechanical principles
3	Theoretical	Development of bone tissue, nutrition of bone tissue, bone cells, physiological properties and orders.
4	Theoretical	Stresses on bone, functional adaptation of bone to pathological conditions
5	Theoretical	Cartilage tissue structure and properties, mechanics, pathokinetics
6	Theoretical	Mechanics of muscle function and pathokinetics
7	Theoretical	Mechanical properties of collagen tissue and pathokinetics
8	Theoretical	Midterm Exam
9	Theoretical	Classification of body joints, synovial joints and their characteristics
10	Theoretical	Joint cohesion, movements in joints according to the planes
11	Theoretical	Sliding and swinging motion, levers, balance, orientation planes and coordinates
12	Theoretical	Normal and pathological gait
13	Theoretical	Mechanics and pathomechanics of columna vertebralis
14	Theoretical	Scoliosis pelvic-hip-knee-ankle and foot mechanics and pathomechanics
15	Theoretical	Shoulder-arm complex, elbow, wrist and hand mechanics and pathomechanics

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Assignment	1	10	2	12
Reading	10	0	1	10
Individual Work	14	0	2	28
Midterm Examination	1	2	2	4

Final Examination	1	2	2	4
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To know general characteristics of musculoskeletal system
2	To know the structure and general properties of joints
3	To be able to evaluate the history of musculoskeletal diseases
4	To learn general mechanical principles
5	Learning the mechanics and pathokinemathy of muscle function

Programme Outcomes *(Physiotherapy)*	
1	To be able to recall the information of research methods and statistics so as to follow the developments, monitor and interpret scientific literature
2	To have the appropriate knowledge of basic sciences at the level of interest, to use specific medical terms and terminology of physical therapy
3	To be able to recall knowledge of the general structure and proporties of musculoskeletal system and the joints and to evaluate the story of musculoskeletal diseases.
4	To be able to comprehend the methods of measurement of the range of motion of joints and to measure it.
5	To be able implement a general evaluation of posture analysis and gait analysis.
6	To be able to recall the knowledge about general characteristics of musculoskeletal diseases, osteoporosis, osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, especially rheumatic diseases, mechanical low back and neck pain, disc herniation, soft tissue disorders and to apply appropriate physiotherapy.
7	To be able to recall the knowledge and gain skills about the devices and the agents of heater used in physical therapy, indications and contraindications of using, and the necessary information about how to apply on patients.
8	To be able to recall the knowledge of the electromagnetic field.
9	To be able to recall what Elektroakapunktur, Laser, Biofeedback, cervical and lumbar traction systems, pneumatic compression therapy are, and how to apply them, which one is applicable to patients.
10	To be able to recall what manipulation-mobilization is and which patients are suitable for this application.
11	To be able to recall what massage and hydrotherapy treatments are and which patients are suitable for these applications.
12	To be able to gain the professional and ethical awareness, apply gained knowledge and skills in reallife situations and transfer gained knowlegde to individuals around her/his environment, and improve behavior of life-long learning.
13	To gain knowledge about methods of diagnosis, protection and treatment of diseases
14	To be able to recall the knowledge and gain skills about physical therapy and rehabilitation methods to be applied to neurological disorders.
15	To be able to recall the knowledge and gain skills about physical therapy and rehabilitation methods to be applied to cardiopulmonary disorders.
16	To be able to recall the knowledge and gain skills about physical therapy and rehabilitation methods to be applied to pediatric patients.
17	To be able to gain knowledge about the effects of fitness and exercise on metabolism and responses of body systems to them.
18	To have knowledge about rehabilitation services
19	To become individuals who can do interdisciplinary team work, with a sense of social responsibility and entrepreneur.
20	To be able to recall the knowledge about Ataturk's Principles and the History of Turkish Revolution.
21	To be able to gain the knowledge and ability to become contemporary individuals who can use Turkish language grammar well and know a foreign language knowledge necessasary to follow the developments in the profession.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P3	5	5	5	5	5
P4	5	5	5	5	5
P5	5	5	5	5	5