

## Module (Course Syllabus) Catalogue

### 2022-2023

College/ Institute	Erbil Technical Health and Medical college	
Department	Prosthetics and Orthotics	
Module Name	Anatomy and Human Movement	
Module Code	AHM104	
Degree	Technical Diploma <input type="checkbox"/> Bachler <input checked="" type="checkbox"/> High Diploma <input type="checkbox"/> Master <input type="checkbox"/> PhD <input type="checkbox"/>	
Semester	1 <sup>st</sup>	
Qualification	Master in Rheumatology and Medical Rehabilitation	
Scientific Title	Assistant lecturer	
ECTS (Credits)	6 ECTS	
Module type	Prerequisite <input type="checkbox"/> Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>	
Weekly hours	4 hr	
Weekly hours (Theory)	( 4 )hr Class	( 160 )Total hrs Workload
Weekly hours (Practical)	( )hr Class	( )Total hrs Workload
Number of Weeks	12	
Lecturer (Theory)	Dr. Zekra Ali Aziz	
E-Mail & Mobile NO.	<a href="mailto:zekra.aziz@epu.edu.iq">zekra.aziz@epu.edu.iq</a> - 00964 750 441 3211	
Lecturer (Practical)		
E-Mail & Mobile NO.		
Websites		

# Course Book

<b>Course Description</b>	<p>-This course introduces the student to the integrated approach to the study of the physical structure of the musculoskeletal system and their functional relationship to the movements of the human body.</p> <p>-The course will give to students an in-depth appreciation of the movements of extremities, vertebral column, temporomandibular joint; normal and abnormal posture, balance, and gait.</p> <p>-This course will help the students/clinician to recognize the relationships between normal structure and function, abnormal structure and dysfunction.</p> <p>-This foundation should lead to improved evaluation and develop intervention approaches to different conditions and/or dysfunctions</p> <p>-understanding the anatomy of human muscles and skeleton of the upper and lower limb to provide therapeutic modalities based on the principles of actions and nerve supply.</p>
<b>Course objectives</b>	<p>This course aims to provide the student with a comprehensive knowledge of structures and functions of the musculoskeletal system related to movement and its applications sufficient for the study of orthotics and prosthetics.</p> <p>More specifically, the student is expected to perform the following:</p> <ol style="list-style-type: none"><li>1. Define and apply anatomical terminology, position, and planes of movement.</li><li>2. Identify and name the bones of the human body, locate and identify their landmarks, and describe the types, structure, and function of bones.</li><li>3. Identify the types of joints in the human body and their general functional characteristics. Identify and describe the anatomy of specific joints, selected ligaments, and bursa of the human body.</li><li>4. Identify and name the muscles of the upper extremity, lower extremity, neck, trunk, and face. Identify the bony origins and insertions of the muscles and explain and demonstrate the action of the muscles.</li><li>5- Identify anatomical principle of upper and lower limb related to human health and diseases.</li></ol>

<b>Student's obligation</b>	<ul style="list-style-type: none"> <li>• Reading and understanding of study notes</li> <li>• Participation in forum and discussions</li> <li>• Participation in active communication with the lecturer</li> <li>• Regular assignment submission</li> <li>• Lab required during</li> </ul>				
<b>Required Learning Materials</b>	Lectures notes, videos, audios, platform-based conferences, homework exercises, homework correction and guidance, live consultation and problem-solving, self-study. Hall, projector, lab materials.				
<b>Evaluation</b>	<b>Task</b>	<b>Weight (Marks)</b>	<b>Due Week</b>	<b>Relevant Learning Outcome</b>	
	Paper Review				
	<b>Assignments</b>	Homework	10%	4 <sup>th</sup> &11 <sup>th</sup>	3,4,5,&6
		Class Activity	2%		
		Report	8%	6 <sup>th</sup>	1&2
		Seminar			
		Essay			
		Project	8%	10 <sup>th</sup>	3,5,&6
	Quiz	8%	All	All	
	Midterm Exam	24%			
	Final Exam	40%			
Total	100%				
<b>Specific learning outcome:</b>	<p>1-Ability to develop general knowledge in Prosthetics and orthotics and understand the subjects of the module.</p> <p>2- Ability to understand and use, of general anatomy in Prosthetics and orthotics</p> <p>3-demonstrate the ability to think critically and solve problems.</p> <p>4- Ability to apply knowledge in practice.</p> <p>5- Ability to make a reasoned decision.</p> <p>6- Apply understanding of human anatomy of upper and lower limb on demonstration of evidence based practice .</p>				
<b>Course References:</b>	<p>1. Anatomy of Movement, Eastland Press (2007) (Revised Edition) Blandine Calais-German.</p> <p>2. Anatomy and human movement - structure and function, Nigel Palastanga, Roger Soames- -Churchill Livingstone, 2012.</p> <p>3. Kinesiology of the Musculoskeletal System: Foundations for</p>				

	Rehabilitation, 2nd Edition, Donald A. Neumann. 4- Gary's Anatomy of the Human Body, Henry Gary 5- Clinical anatomy By Regions 9th edition, Richard Snell. 6- Gary's Anatomy for student, 3 <sup>rd</sup> edition, Richard L Drake.	
Course topics (Theory)	Week	Learning Outcome
<b>Basic anatomy: Introduction</b> to anatomy, definition, subdivisions, Body Cavities, Body Regions, anatomical position, terms related to movement, and planes.	1 <sup>st</sup>	2
<b>Skeletal system</b> , Cartilage, and types, Bone, classification, development, Ossification. the axial skeleton, appendicular skeleton.	2 <sup>nd</sup>	1
Articular System, Classification, Synovial Joints, classification, Innervation and blood supply of the joints, Muscular System Muscle types, nerve and blood supply of the muscles, Skeletal muscles, classification function.	3 <sup>rd</sup>	2
Nervous System, brain, PNS, Functional Divisions.	4 <sup>th</sup>	2
Musculoskeletal System of the Head and Neck, Organization and Regional Differences of the vertebral column, Deep Back Muscles, Movements in the vertebral column	5 <sup>th</sup>	1
The anatomy of the pelvic inlet and outlet and recognise their normal orientation. Explain sexual differences in pelvic skeletal anatomy.	6 <sup>th</sup>	3 & 5
<b>Midterm Exam</b>		
Hip joint Bones, muscles , motions, Gluteal region, thigh .	7 <sup>th</sup>	6
Knee joint, bones, muscles, and motion and muscles of the leg.	8 <sup>th</sup>	6
Ankle joint and bones, muscles and motions and arches of the foot.	9 <sup>th</sup>	6
Shoulder (Pectoral) Girdle, bones, muscles, joints, movement, The shoulder joint, movements, Muscles of the Shoulder Joint, Common Shoulder Pathologies.	10 <sup>th</sup>	4
Musculoskeletal System of the (Thoracic Wall) Elbow complex: introduction muscle of elbow and forearm.	11 <sup>th</sup>	4
Wrist Joint, bones, muscles, Motions , hand, bones , muscles, Joints	12 <sup>th</sup>	3

and Motions.

**Final exam**

**Questions Example Design**

Questions Example Design

**Q1**-Choose the answer:

1-The ankle joint

- A. is formed by the tibia, fibula, and the talus.
- B. has the deltoid ligament on the lateral side.
- C. is the joint for the movements of inversion and eversion.
- D. is a saddle type of joint
- E. All of the above is true.

**Q2**-. complete the following

A- ----- is the lateral bone of the forearm.

**Q3**-filling the blanks?

1-the muscles of the arm are.

A-

B-

C-

D-

2-Imaginary planes include

A-

B-

C-

**Q4-Quiz:**

1-The head of the femur sits in and articulates with the

A-Acetabulum B-os coxa C-glenoid cavity

**Q5. Short essay**

1-Name the extremity muscles that are located on the back

2- Name and give the origins, insertions, and motor innervations of the muscles that attach to the scapula.

3. Discuss inversion and eversion ankle sprains

**Q6- matching list A to list B**

List A

List B

Supine

scaphoid

Carpal bone

when the body is lying on the back

**Q6-ANSWER THE FOLLOWING BY TRUE OR FALES .and corrects the false.**

1-T he elbow joint is an example of a hinge joint. True or False? True

2-The subscapularis muscle is innervated by the suprascapular nerve. True or False?  
False (he subscapularis muscle is innervated by the upper and lower subscapular nerves.

**Extra notes:**

**External Evaluator:**