



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

PTA2120 Applied Clinical Anatomy

4 Semester Credit Hours

Student Learning Outcomes and Enabling Objectives

1. Describe the anatomical and structural properties of the musculoskeletal system of the human body.
 - a. Discuss the human body using directional, positional and regional terminology.
 - b. Distinguish the major muscles, tendons, ligaments, bones and joints.
 - c. Classify major bones and joints based on structure and function.
 - d. Identify the origin, insertion, innervation and action of major muscles.
2. Demonstrate accurate identification of surface anatomy landmarks and appropriate palpation of anatomical structures.
 - a. Implement appropriate patient handling and preparation for palpation.
 - b. Determine the primary bony landmarks for each region of the body.
 - c. Perform palpation of superficial bony landmarks and major muscles.
3. Compare and contrast osteokinematics and arthrokinematics of each diarthrodial joint.
 - a. Distinguish osteokinematics, planes and axes of movement of the body.
 - b. Explain the convex-concave rule of joint arthrokinematics.
 - c. Examine normal arthrokinematics of major joints of the body.
4. Describe the kinetic and biomechanical principles of human movement.
 - a. Discuss the relationship between physical laws and biomechanical principles of movement.
 - b. Identify agonist, antagonist and synergists of movement at each joint.
 - c. Describe various types of muscular contraction and the length-tension relationship of muscles.
 - d. Differentiate between open and closed kinetic chain movements of the upper and lower extremities.
 - e. Differentiate between active and passive insufficiency and relate how these principles apply to intervention.
5. Explain the basic principles of posture
 - a. Describe optimal alignment of body structures in various postures.
 - b. Recognize common postural faults.
 - c. Discuss the potential impact of postural faults on the musculoskeletal system.

6. Analyze the components of the gait cycle.
 - a. Define key terminology as it relates to the gait cycle.
 - b. Describe the muscle activity and joint motions at various phases of the gait cycle.
 - c. Examine the effect of musculoskeletal impairments on abnormal gait.

Big Ideas and Essential Questions

Big Ideas

- Musculoskeletal system
- Surface anatomy
- Joint movement
- Biomechanics
- Posture
- Gait Cycle

Essential Questions

1. What role do muscles, ligaments and cartilage play in the human body?
2. Why is identification and palpation of surface anatomy essential to Physical Therapist Assistant practice?
3. How are joints classified by both structure and function?
4. How can biomechanical principles be utilized to improve skill performance?
5. How does posture affect the structure and function of the musculoskeletal system?
6. How do bones, muscles and joints work together to enable movement and locomotion?

These SLOs are not approved for experiential credit.

Effective: Fall 2022