

Northwest Arkansas Community College
Health Professions Division
Physical Therapy Assistant Program

Discipline Code

PHTA

Course Number

2105

Course Title

Clinical Kinesiology

Catalog Description

This course presents an overview of the relationship between structure and movement function of the human body including basic joint structure, muscle anatomy and function (origin, insertion, action and innervation), and types of muscle contraction. Application of biomechanical and kinesiological principles is utilized to analyze common motor tasks

Prerequisites

None

Credit Hours

5 credit hours

Contact hours

lecture contact hours

Load hours

5 load hours

Semesters Offered

Spring

ACTS Equivalent

None

Grade Mode

A-F

Learning Outcomes

Upon successful completion of this course, the student should be able to:

1. Apply basic biomechanical principles to movement and to anatomical structures.

2. Identify basic joint and muscle characteristics.
3. Given a bone or diagram locate and name bones and bony landmarks of the UE's, LE's, and spine.
4. Identify the location and function of ligaments and joints of the UE's, LE's, and spine.
5. Identify muscles of the UE, LE, and trunk to include: origins and insertions, muscle action, muscle name.
6. Given a written description of a functional activity or limb movement, assess the following: a) muscle(s) working b) type muscle contraction (eccentric, concentric, isotonic, isometric etc.) c) agonist and antagonist muscles d) influence of gravity (against gravity, gravity assisted, gravity eliminated) e) differentiate between open and closed chain activities
7. Identify peripheral nerve innervation for each muscle covered in the UE, LE, and trunk.
8. Demonstrate basic understanding of hand and precision grips.
9. Given a mock patient, demonstrate ability to locate palpable bony landmarks, joints, & muscles.
10. Given a written description or demonstration, name the joint motion that is occurring using appropriate terminology.
11. Differentiate between convex and concave surfaces for each joint.
12. Describe/define scapulohumeral rhythm and force couple and explain its role in shoulder movement.
13. List and/or identify rotator cuff muscles and their role in the shoulder.
14. Differentiate between the cervical, thoracic, and lumbar spine for function of vertebral curves, movement available.
15. Identify normal physiological range of motion.
16. Demonstrate observational ROM for assessing joint ROM for UE's, LE's, and spine.
17. Identify accessory motions per concave – convex law for selected joints.
18. Identify loose-packed and closed-packed position for selected joints.
19. Recognize definitions for various end feels.
20. Identify &/or describe a variety of common joint deformities.

General Education Outcomes Supported

- Students develop higher order thinking skills.
- Students can employ a variety of sources to locate, evaluate, and use Information.

