OTA 103 Applied Anatomy

COURSE LEARNING OUTCOMES (CLOs)
1. Define a variety of terms related to anatomical segments, bony structures, joints, movements and planes, muscle contractures, and kinesiology.
2. Identify all the major bones and their landmarks, joints, ligaments, and muscles.
3. Identify origins and insertions for all of the major muscles groups and ligaments.
4. Identify the innervation distribution patterns for all of the major muscle groups.
5. Describe actions and planes of motion of the major muscle groups of the body.
6. Describe the principles of the kinesiology as they contribute to human motion and functional ability.
7. Describe the correct techniques for the performance of passive range of motion.
8. Describe the correct techniques for the performance of manual muscle testing.
9. Describe the phases of respiration and identify the muscles involved in each phase.

Outline

I. Skeletal Anatomy Review
   A. Bones and bony structures
   B. Articular system
   C. Terminology related to position, planes and axis of motion, movements and kinesiology
   D. Palpation of landmarks, palpation skills
II. Introduction to Goniometry
   A. Range of motion and joint movements
   B. Limitation of movement
   C. Systems, types of instruments
   D. Procedures: positioning, stabilization, goniometer alignment, recording
III. Introduction to Muscle Testing
   A. Muscle anatomy and basic principles of kinesiology
   B. Principles/procedures of manual muscle testing
IV. Basic Review of Nervous System
   A. Segmental distribution for muscles-motor
   B. Sensory dermatomes
   C. Abnormal muscle function
V. The Shoulder
   A. Goniometry
   B. Muscle Testing
   C. Kinesiology
VI. The Elbow
   A. Goniometry
   B. Muscle Testing
VII. The Wrist and Hand
   A. Goniometry
   B. Muscle Testing
   C. Grasp and pinch strength
   D. Dynamometer
   E. Pinch Meter
VIII. The Spine
A. Cervical Range of Motion
B. Cervical Manual Muscle Testing

IX. Respiration
A. Anatomy of the thoracic cavity
B. Phases of respiration
C. Muscles of respiration
D. Use of inspirometer