



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

OCC 5210 Upper Extremity Rehabilitation I
4 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Conceptualize occupational tasks that require anatomical components in the shoulder to work together for function.
 - a. Recognize in detail the bones, joints, ligaments, muscles, blood vessels and nerves in the shoulder complex
 - b. Demonstrate understanding of shoulder anatomy in a two dimensional format by labeling anatomical components
 - c. Identify accessible shoulder anatomy on human models
 - d. Synthesize how the anatomical components in the shoulder work together for functional use and how to assess/treat for dysfunction

2. Formulate hypotheses on potential patterns of dysfunction in human occupations when there are lesions to different portions of the brachioplexus.
 - a. Describe the anatomical arrangement of the brachioplexus
 - b. Label/draw the anatomical parts of the brachioplexus including the peripheral nerves
 - c. Hypothesize patterns of dysfunction/function and how to evaluate/treat when there are lesions in the brachioplexus.

3. Conceptualize occupational tasks that require anatomical components in the elbow and forearm to work together for function.
 - a. Recognize in detail the bones, joints, ligaments, muscles, blood vessels and nerves in the elbow and forearm
 - b. Demonstrate understanding of elbow and forearm anatomy in a two dimensional format by labeling anatomical components
 - c. Identify accessible elbow and forearm anatomy on human models
 - d. Predict common areas of nerve compression using assessment procedures based on knowledge of the anatomy

- e. Hypothesize and know how to assess/treat where there is anatomical susceptibility to conditions of over-use and or tendonitis.

4. Conceptualize occupational tasks that require anatomical components in the wrist and hand to work together for function.

- a. Recognize and locate the bones, complex ligament arrangement, and joint articulations of the wrist
- b. Recognize and locate the blood supply, peripheral nerve distribution/innervations of the hand.
- c. Recognize and locate the bones joints, ligaments, intrinsic and extrinsic muscles of the hand.
- d. Understand the relationship of the flexor tendons/sheath, volar plate and pulley system in the hand and also explain the extensor mechanism of the finger to propose how the flexor and extensor systems of the finger function effectively.
- e. Summarize conservative and post-surgical best practice protocols for common injuries of the wrist and hand.

5. Implement best practice occupational therapy techniques commonly used in upper extremity assessment and treatment.

- a. Demonstrate ability to use standardized and not standardized assessment tools used to evaluate a client with upper extremity conditions/injuries
- b. Demonstrate ability to use manual therapy techniques (e.g. myofascial release, joint mobilization) in the upper quadrant as part of treatment to facilitate occupational performance.
- c. Demonstrate safe and effective application of superficial thermal and mechanical modalities (as well as understand indications, contraindications and precautions), as a preparatory measure to improve occupational performance.
- d. Explain the use of (indications, contraindications, precautions) deep thermal and electrotherapeutic modalities as preparatory measures to improve occupational performance.
- e. Understand sterile techniques that should be practiced when dealing with open wounds, and be able to classify wounds by type.
- f. Understand the scar development process and demonstrate scar remodeling techniques.

6. Justify the choices made in designing treatment plans based on the knowledge of upper extremity anatomy and the facts concluded from case studies.

- a. Analyze the effects of diseases, trauma, genetic conditions, and injury to the upper extremity and appreciate how the biomechanics of movement influence function and dysfunction.
- b. Using knowledge of anatomy, practice models/theory and current literature, interpret information (data base and occupational profile) in patient case studies to design client centered evaluation.
- c. Evaluate the factors in case studies and design a comprehensive and individualized treatment intervention based on physiological etiology, safety, health and wellness performance in ADLS, IADLs, work and leisure, as well as unique life circumstances.
- d. Compose documentation needed for third-party reimbursement based on case study content.

7. Develop an understanding of custom made orthotics and adaptive equipment and how they can enhance occupation

- a. Articulate the anatomical and biomechanical principles of orthotic fabrication and adaptive equipment design based on the scientific principles of anatomy, kinesiology, biomechanics and physics.
- b. Develop an understanding of the types and categories of orthotics

Associate orthotic designs and adaptive equipment with common conditions and injuries of the upper extremity in clients

Required Elements

RE 1. Clothes appropriate for the lab portion of the class

RE 2. Goniometers

RE 3. Students must have access to the internet to access the OnLine Library and to participate in Learning Management System discussions.

These SLOs are not approved for experiential credit.

Effective: Summer 2018