



BAKER COLLEGE

STUDENT LEARNING OUTCOMES

PTA2650 Orthotics and Prosthetics for the PTA
1 Semester Hour

Student Learning Outcomes and Enabling Objectives

At the completion of this course, the student will be able to perform the following outcomes with a minimum competency of 77% (C+) or better.

1. Discuss the rationale for learning about the different types of prosthetics and orthotics.
 - a. Identify the role of the physical therapist assistants in carrying out interventions for patients with prosthetics or orthotics.
 - b. Compare and contrast the psychosocial and cultural responses to changes in body image among clients of all ages resulting from use of prosthetic or orthotic.
2. Identify various upper and lower extremity orthotics and prosthetics and examine the effects and benefits in terms of improved function for various impairments.
 - a. Compare and contrast the basic components of upper and lower extremity orthotics and prosthetics. 7D23b
 - b. Describe the functional results of amputation surgeries.
 - c. Compare and contrast the different types of post-operative dressings for amputations including advantages and disadvantages of each type. 7D23i
 - d. Explain and demonstrate basic wrapping techniques for the residual limb in a patient with lower extremity amputation. 7D23i
3. Investigate appropriate application of orthotics and prosthetics to improve mobility in various patient populations within the plan of care established by the physical therapist. 7D23b
 - a. Instruct patient and caregiver in the safe and proper donning, doffing, and care of various prosthetics and orthotic devices. 7D24d
 - b. Distinguish common wear concerns including skin integrity and pain, poor fit and alignment of lower extremity orthotics and prosthetics. 7D24d
 - c. Differentiate between phantom sensation and phantom pain, and discuss the effects of the phantom on prosthetic adjustment and function in clients of different ages.
 - d. Implement an appropriate program of exercises and mobility training for amputees of different ages and types.
4. Demonstrate functional training within the plan of care established by the physical therapist for a patient using an upper or lower extremity orthotic/prosthetic. 7D24a
 - a. Recognize common gait deviations potentially caused by an ill-fitting orthotic/prosthetic.
 - b. Differentiate between orthotic/prosthetic causes versus anatomical causes. 7D24a
 - c. Describe the biomechanical effects of limb loss and use of a prosthetic or orthotic device on balance.

- d. Describe the biomechanical methods employed in therapeutic shoes, shoe modifications or foot orthoses to achieve goals of gait training.
 - e. Discuss the applications for ankle-foot, knee-ankle-foot and hip orthoses to improve function in patients of all ages.
5. Describe the biomechanical methods employed in trunk, spinal, and cranial orthoses to achieve orthotic goals established by the physical therapist.
- a. Discuss applications for trunk, spinal, and cranial orthoses and their impact on patients' functional abilities.
 - b. Describe the impairments that may be improved by trunk, spinal, or cranial orthoses.

Big Ideas

Big Ideas

- Amputations
- Prosthetics
- Orthotics
- Gait training with prosthesis

These SLOs are not approved for experiential credit.

Effective: Fall 2018