Miami Dade College

Course Description

PHT2701L | Rehabilitation Procedures Laboratory | 2.00 credits

Laboratory course for PHT2701 Rehabilitation Procedures. This course provides laboratory practice of technical skills relating to physical therapy interventions and rehabilitation concepts and principles for neurological and other medical conditions across the lifespan and continuum of care. Prerequisites: PHT2120, PHT2120L, PHT2224, PHT2224L, PHT2801C; Corequisites: PHT2162, PHT2701, PHT2810

Course Competencies:

Competency 1: The student will understand the neurorehabilitation technique ROOD by:

1. Identifying the rationale for the multi-sensory approach to neurorehab.
2. Differentiating between light work and heavy work muscle activity.
3. Describe the four functional differences between group 1 and group 11 muscles (flexors and extensors).
4. Sequencing the components of ontogenetic motor development under the headings of reciprocal innervation, co-innervation, heavy work, and skill.

Competency 2: The student will understand neurorehabilitation techniques BRUNNSTROM / PNF by:

1. Describe and state the rationale for the following basic PNF procedures: manual contacts, commands, stretch stimulus, traction, approximation, and maximal resistance.
2. Describe and state the rationale for the following technique to emphasize in PNF techniques: repeated contractions hold–relax active motion, contract-relax, rhythmic initiation, and rhythmic stabilization.

Competency 3: The student will demonstrate an understanding of neurorehabilitation techniques NDT by:

1. Discuss the significance of the following: midline orientation, bilateral activities, hand–hold, positioning, inhibition/facilitation techniques.
2. Given a simulated patient problem, solving for treatment needs and rationale for goals and aims of treatment.

Competency 4: The student will demonstrate an understanding of neurorehabilitation UMN treatment strategies by:

1. Discussing the team approach: PT, OT, Speech, Nursing, RT, MD, Social services, Patient/ family.
2. Discuss the treatment approach for the treatment of MS during exacerbation and remission.
3. Discussing the treatment approach for ALS.
4. Discussing the treatment approach for Cerebellar disorder.

Competency 5: The student will demonstrate an understanding of the treatment approach for SCI /LMN by:

1. Discussing levels of spinal cord lesions, matching the appropriate functional losses, key muscle groups, functional goals, necessary assistive devices, and ADL restrictions
2. Discuss the level of spinal cord lesions and treatment approaches as it applies to bed mobility activities and transfers.

Competency 6: The student will demonstrate an understanding of the wheelchair, orthotics, and prosthetics by:

1. Identifying factors in a wheelchair selection.
2. List the characteristics of a properly fitted wheelchair, including seat width, seat depth, seat height, footrest adjustments, and arm height.
3. Describing selected adjustments and indications for their use, including one-arm drive, molded seats, power-drive, posterior wheel placement, angle–in–space, and postural adaptations.
4. Identifying the differences in prescribed chairs for various disorders.

5. Identifying common architectural barriers to wheelchair access and suggest appropriate environmental modifications.
6. Identifying naming principles in identifying an orthosis.
7. Identifying appropriate therapeutic exercises that should be reinforced using an orthosis.
8. Naming a given amputation according to its anatomical level.
9. Identifying gait deviations and a list of amputee causes matching deviations with appropriate cause.
10. Identifying an amputee cause of a gait deviation, suggesting appropriate exercises to be performed in order to correct deviation.

Competency 7: The student will demonstrate an understanding of the physical therapy associated with the geriatric patient by:

1. Identifying the common diseases in the geriatric population in the following categories: cardiovascular, pulmonary, skeletal, muscular, neurological, and neurosensory.
2. Identifying common characteristics and challenges of delivering physical therapy services in the home health settings.

Competency 8: The student will demonstrate an understanding of the physical therapy associated with the pediatric patient by:

1. Demonstrating typical developmental sequence.
2. Demonstrating normal primitive reflexes.
3. Identifying treatment approaches for the pediatric patient.

Competency 9: The student will demonstrate an understanding of Cardiopulmonary Rehabilitation and Treatment of P.V.D. by:

1. Through auscultation, assessing a partner the presence of normal and/ or abnormal breath sounds.
2. Through palpation and percussion, determining on a partner the location of various anatomical items and respiratory sounds
3. Demonstrating on a partner, postural drainage positions, percussion, and vibration (lobe specific)
4. Demonstrating positions to relieve shortness of breath
5. Teaching partner breathing exercises include diaphragmatic, pursed lip, glossopharyngeal, and segmental breathing.
6. Given a clinical scenario, demonstrate an appropriate sequence of therapeutic intervention.
7. Given a diagnosis of a PVD, demonstrate appropriate therapeutic exercises.
8. Simulating patient scenarios and role-playing communication with the supervising therapist on parameters identified.

Competency 10: The student will understand Burns, and Wounds by:

1. Reviewing and demonstrating sterile technique
2. Reviewing and demonstrating appropriate universal precautions
3. Correctly demonstrating how to apply wound dressings
4. In a simulated patient situation, instructing patient and family in dressing.
5. Demonstrating positioning to prevent contractures.
6. Demonstrating debridement techniques.

Competency 11: The student will demonstrate an understanding of the neurorehabilitation technique:

1. Task-Oriented Approach by:
2. Discussing the main concepts of neurological rehabilitation, motor control theory, and the task-oriented approach
3. Defining motor control
4. Analyzing a motor task and listing the components (Balance, STS, Gait, and Reaching and Manipulation)
5. Defining balance and its components
6. Identifying the components of reaching and manipulation
7. Comparing other theories of neurological rehabilitation

8. Recognizing and describing normal and abnormal motor behavior

Competency 12: The student will demonstrate an understanding of gait as it relates to stroke by:

1. Listing the phases of normal gait using the original or traditional and Ranchos Los Amigos (RLA) terminology
2. Comparing the original or traditional and Ranchos Los Amigos terminology
3. Distinguishing between normal and abnormal gait patterns
4. Demonstrating normal and abnormal gait patterns
5. Defining the tasks required for normal gait
6. Describing causes of abnormal gait patterns
7. Recognizing gait deviations and compensatory strategies
8. Listing age-related changes for gait
9. Analyzing abnormal gait patterns
10. Demonstrating functional tests for gait and impaired balance

Competency 13: The student will demonstrate an understanding of balance as it relates to stroke rehabilitation by:

1. Defining balance
2. Listing the body systems required for average balance
3. Listing standard internal mechanisms for postural adjustments
4. Listing compensatory strategies with a focus on stroke
5. Comparing balance adjustments and automatic postural tone
6. Identifying the role of the cerebellum in balance and coordination
7. Demonstrating normal and abnormal alignment of trunk and extremities at rest and during activities
8. Listing age-related changes that affect balance
9. Identifying everyday strategies needed to balance during sitting, transfers, standing, and gait
10. Identifying adaptations with abnormal balance
11. Demonstrating balance training activities and strategies for sitting, standing, and during gait
12. Determining the safety, status, and progression of patients while engaged in balanced activities
13. Displaying proper use of a harness system for controlled weight bearing and balance activities n)) Performing functional tests for balance assessment

Learning Outcomes:

1. Communication
2. Computer / Technology Usage
3. Social Responsibility
4. Critical Thinking
5. Ethical Issues