

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: PTAS 306 Department: Physical Therapist Assistant
Course Title: Neurological Treatment Approaches/Integrated Practice Semester: Spring Year: 1999

Objectives/Competencies

Course Objective	Competencies
1. Knowledge of basic neuroanatomy and physiology.	1. Identify the locations and functions of the major structures of the brain. 2. Identify the major neurotransmitters. 3. Identify the major sensory and motor spinal cord tracts. 4. Differentiate between the sympathetic and parasympathetic sections of the autonomic nervous system. 5. Describe the circulatory and ventricular systems of the brain. 6. Differentiate between the CNS and PNS.
2. Knowledge of normal motor development.	1. Identify survival and primitive reflexes. 2. Recognize the normal motor milestones in the developing child. 3. Integrate reflexive behavior with the development of motor function.
3. Knowledge of the geriatric patient.	

Course Objective	Competencies
<p>4. An understanding of the neurophysiological approaches to treatment.</p>	<ol style="list-style-type: none"> 1. Recognize the physiological changes that occur with the geriatric patient. 2. Identify factors that may influence the rehabilitation process with the geriatric patient. 3. Formulate treatment programs for the geriatric patient.
<p>5. Knowledge of assessment procedures used in the clinical setting.</p>	<ol style="list-style-type: none"> 1. Answer basic questions and NDT and know names of other specialized methods (Rood, Brunstrom). 2. Demonstrate applications of NDT techniques. 3. Describe theoretical framework for PNF. 4. Demonstrate diagonal patterns in PNF. 5. Demonstrate applications of PNF techniques using the essential components of the technique. 6. Produce and perform an appropriate therapeutic exercise program, given a patient scenario.
<p>6. Comprehension of motor learning theory and its application to rehabilitation.</p>	<ol style="list-style-type: none"> 1. Demonstrate sensory testing and state what neurological structures are involved when deficits are present. 2. Recognize the developmental testing process used in clinical settings. 3. Recognize the various balance assessment techniques used and be able to demonstrate a testing procedure.
<p>7. An understanding of the concept of rehabilitation.</p>	<ol style="list-style-type: none"> 1. Define principles of motor learning. 2. Integrate principles of motor learning into a rehab program.

Course Objective	Competencies
<p>8. Skill in the application of therapeutic exercise with the following patient population:</p> <ul style="list-style-type: none"> a. CVA b. TBI c. Pediatric d. M.S. e. Parkinson's Disease f. Geriatric <p>9. An awareness of specialized exercise programs.</p> <p>10. An ability to communicate both orally and written.</p>	<ul style="list-style-type: none"> 1. Describe the rehabilitation program for patients with the following disorders: <ul style="list-style-type: none"> a. hemiplegia b. spinal cord injuries c. head trauma d. M.S. e. Parkinson's Disease f. Cerebral palsy 1. Demonstrate proficiency with the following techniques/approaches: <ul style="list-style-type: none"> a. NDT b. PNF c. Motor Learning 2. Demonstrate proficiency in performing basic assessment techniques related to the patient being treated. 3. Produce and perform an appropriate therapeutic exercise program, given a patient scenario or case study. 4. Maintain safety for patient and self throughout the treatment session. 1. Describe major components of specialized programs such as group programs for the elderly and cardiac rehab programs. 1. Instruct patients clearly and succinctly. 2. Recognize the effects of one's non verbal communication

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11. An ability to think critically.	<ul style="list-style-type: none"> to others. 3. Write home exercise programs and instructions. 4. Deliver effective oral presentations to others. 5. Maintain patient confidentiality.
12. Appropriate affective behaviors.	<ul style="list-style-type: none"> 1. Use critical thinking and problem-solving skills related to therapeutic exercise. 2. Apply learned procedures to new situations. 3. Apply appropriate skills to a treatment program and demonstrate ability to progress patient.
13. Commitment for lifelong learning.	<ul style="list-style-type: none"> 1. Utilize lab time efficiently to learn and practice skills. 2. Demonstrate a professional appearance in lab and clinic. 3. Assume responsibility for tasks assigned. 4. Communicate effectively with patient and instructor(s). 5. Demonstrate ethical professional conduct. 6. Interact effectively with patients, families and colleagues and deal effectively with cultural and ethnic diversity issues. 7. Accept responsibility for one's own behavior. 8. Identify sources of stress and develop effective coping behaviors.

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