STANDARD COURSE OUTLINE

PHTA 2362& PHTA 2333 Therapeutic Exercise Lecture & Lab

PREREQUISITE:

MATH	1204	College Algebra **OR**
MATH	1003	Math for AAS
BIOL	2214	Anatomy & Physiology I
BIOL	2224	Anatomy & Physiology II
PSYC	2003	General Psychology
ENGL	1013	English Composition I
ENGL	1023	English Composition II **OR**
ENGL	2013	Technical Writing
AHSC	1001	Medical Terminology
CISQ	1103	Introduction To Computer Information
PHTA	2105	Clinical Kinesiology in PT

Admission into the Physical Therapist Assistant Program

CREDIT HOURS PHTA 2362 2 credit hours / non-transferable; 2 contact hours; 2 load hours
PHTA 2333 3 credit hours / non-transferable; 9 contact hours; 9 load hours

TARGET AUDIENCE Students admitted to the PTA Program

COURSE DESCRIPTION PHTA 2362: This course is designed to provide the PTA student with an entry level understanding of the theory and clinical application of various types of exercise and neurophysiological treatment techniques to include NDT, PNF, and Motor Control Theory. Emphasis on treatment procedures for lesions of the CNS including vascular disorders, spinal cord injury, head injury and progressive neurological disorders.

COURSE DESCRIPTION PHTA 2333: Lab skills to accompany PHTA 2362.

INSTRUCTIONAL MATERIALS: See Instructor for Details

LEARNING OUTCOMES
Upon successful completion of this course, the student should be able to:

1. Compare & contrast the following treatment approaches in relation to their theories, goals, treatment techniques, and type signs & symptoms you would use the treatment techniques for:
    a. PNF
    b. NDT
    c. Motor Control Theory
    d. Brunnstrom
    e. Other (exteroceptive, proprioceptive, & vestibular stimuli)

2. Given a mock patient and/or written scenario of a PT Initial Evaluation, with PT goals and POC, demonstrate competence in choosing and implementing treatment strategies to meet goals set by the PT with in the parameters of the plan of care based on the patient's functional level and other objective findings.. Goals may include: gait training, transfer training, static and dynamic sitting and standing balance training, bed mobility, facilitation for low tone, inhibition for high tone, midline–orientation, stretching, strengthening, ADL's, and progression in the developmental sequence by utilizing and integrating treatment techniques from a variety of treatment approaches on one patient, to include NDT, PNF, motor control, facilitation and inhibitory techniques. Provide rationale for your choices based on the objective findings in the evaluation, goals set forth by the PT, parameters of the POC, and indications and effectiveness of the treatments utilized.

3. In writing, during discussions, and with mock patient scenarios assess possible cognitive, emotional, behavioral, and regulatory deficits a patient with neurological impairment may have and provide or demonstrate possible techniques to include verbal and non-verbal communication, and sensory stimulation techniques to deal with a patient's behavioral and communication deficits.

4. Given a mock patient and/or written description of objective findings or a PT evaluation with goals, objective findings, and PT POC, demonstrate ability to assess commonly occurring clinical signs & symptoms and implement appropriate treatment techniques to meet goals set by the PT within the parameters of the plan of care for pediatric and adult patients with neurological impairments. State the clinical sign you are treating, the treatment approach you are utilizing, the expected functional outcome, and your rationale for your treatment approach demonstrating and understanding of the objective findings, effectiveness of the treatment approaches, goals set forth and the POC parameters.

5. Explain and discuss the benefits of a team approach for the neurological involved patient. Identify the possible team members and their roles.

6. Identify community resources which provide services to patients with neurological impairments.

7. Explain the effects of muscle tone, obligatory reflexes, sensory disturbance, weakness, balance and poor coordination may have on movement and performance of ADL's. Assess and demonstrate 2-3 treatment strategies to address each of these clinical signs.

8. Given a mock patient and/or written scenario with a PT evaluation with objective findings, goals, and a POC, demonstrate ability to: implement appropriate treatment strategies, utilize equipment catalogs to determine specific ADL devices, assistive devices & orthotics which may be used to improve functional outcomes and/or safety for ADL's, gait, and mobility.

9. Given a mock patient or written scenario including a PT evaluation with goals, objective findings and a POC, demonstrate ability to assess the following:

    a. Discharge planning needs as they relate to equipment
    b. Patient education
    c. Ability of patient and/or caregiver to follow instructions

d. Home modification recommendations
e. Architectural barriers
f. Safety issues
g. Ability of patient and/or caregiver to follow instructions and/or care for assistive devices or other equipment
h. ADL's and functional ability within the parameters set by the PT in the plan of care to meet the short and long terms goals.

10. Be able to define, describe and use appropriate terminology to describe signs and symptoms of patient's with neurological impairment to other health care professionals and the Physical Therapist.
11. Demonstrate knowledge of neuroanatomy by relating type lesion or location of lesion to signs and symptoms the patient presents with.
12. Given a mock patient, demonstrate the ability to utilize verbal and non-verbal communication to establish a therapeutic relationship with the patient and to instruct the patient in treatment to include how to perform exercises, functional tasks, goals and purpose of treatment.
13. Given a mock patient, demonstrate the ability to address the patient's questions regarding their neurological impairment and rationale for treatment techniques in language and terminology they can understand.
14. Demonstrate ability to accurately document treatment techniques utilized, patient's posture at rest and in all functional positions to include midline orientation, associated reactions and synergistic patterns and patient response to treatment in a SOAP note format in a timely, concise, logical and legible format.
15. Demonstrate knowledge of and ability to assess vital signs and an awareness of changes in a patient's response to positional changes, such as lying to sit to stand and appropriate actions to take based on your findings.
16. Given a PT evaluation with objective findings, goals, and POC &/or by student performance of ROM &/or MMT, balance assessments for static and dynamic sitting and standing, assistance needed for bed mobility, transitional movements, transfers, balance, w/c mobility and w/c management skills, tone, sensation and gait on a mock patient, the student will demonstrate knowledge and understanding of the findings to implement an appropriate, effective treatment plan based on the objective findings to meet the goals set by the PT within the parameters of the plan of care established by the PT. Provide rationale for the treatment strategies, the goals you addressed with your treatment based on knowledge of the developmental sequence, and objective findings.
17. In all written scenarios to include: a PT evaluation with objective findings, goals, and a POC and/or mock patient scenarios, demonstrate the ability to utilize knowledge of the treatment techniques and objective findings to address the goals set by the PT within the parameters of the plan of care established by the PT.
18. Given a PT evaluation with objective findings, goals, and a POC in written form and /or with a mock patient, demonstrate the ability to utilize PNF, NDT, Motor Control Theory principles, knowledge of development sequence, and inhibition and facilitation techniques to address goals set forth in the plan of care by the PT. Goals may include: independent bed mobility, independent transitional movements, components of a functional activity, good static and dynamic sitting and standing balance, strengthening, transfer training, gait training, and balance and coordination training for ADL's, wheelchair mobility and gait.
19. Given a written patient scenario, demonstrate ability to recognize changes in a mock patient's cognitive, mental or arousal level and appropriate action to take if there is a change.

20. Given a written patient scenario, demonstrate ability to recognize when a change in the patient's status to include cognitive, mental, arousal, or functional abilities would indicate any of the following actions: that the treatment should not be performed, that the treatment strategies should be adjusted within the POC, and/or that the supervising PT should be notified.
21. Demonstrate ability to describe the safety, functional and cognitive status and progression of patients during treatment techniques to include gait, balance, wheelchair management, transfers, safety, balance, coordination, and ability to follow instructions.
22. Demonstrate knowledge of gross motor milestones and correlate them to the stages of development of initial mobility, stability, controlled mobility, and skill.
23. Demonstrate ability to recognize when the direction to perform a patient treatment intervention is beyond the scope of the PTA practice act and/or standards of normal and ethical practice and report this to the PT.
24. Given mock patient, written case information and/or in discussion discuss and demonstrate ability to recognize individual and cultural differences and respond appropriately.

LAB LEARNING OUTCOMES:
During all Lab Practical Exams, the student will demonstrate

1. Given a mock patient, and PT initial evaluation with PT goals and a POC the student will demonstrate:
    a. Ability to assess, implement and perform appropriate treatment techniques for patients to meet the goals set by the PT within the parametrs of the plan of care.
    b. Appropriate communication skills to include verbal and non-verbal with a mock patient, and the ability to discuss and explain your treatment, the goals your addressing, and your rationale to the supervising PT
    c. Ability to recognize when the direction to perform a patient treatment intervention is beyond the scope of the PTA practice act and/or standards of normal and ethical practice and report this to the PT.
    d. Good body mechanics during mock patient treatments and transfers.
    e. Conduct that reflects knowledge of practice standards that are legal, ethical, and safe in lab practical examinations and meet standards of care.
    f. Ability to recognize changes in a patient's cognitive, mental or arousal level and appropriate action to take if there is a change.
    g. Safety awareness and correct guarding techniques, keeping the patient safe during all aspects of the treatment session.
    h. Ability to accurately document treatment in a SOAP note format.
    i. Ability to establish a therapeutic relationship with the patient using verbal and non-verbal communication, and instructing the patient clearly, and concisely in terminology the patient can understand.
    j. Provide rationale for your treatment selections based on knowledge of the developmental sequence, treatment strategies available, patient's functional level, ADL's, patient's cognitive status, objective findings, PT goals and parameters of the POC.
    k. Ability to adjust interventions within the POC established by the P.T. in response to patient clinical indications and changes in patients status and take appropriate action to include reporting to the P.T.
    l. Knowledge and utilization of universal precautions during all laboratory procedures and lab practicals.

FORMS OF ASSESSMENT
LECTURE
Examinations
Assignments
LAB Practical Examinations
LAB ASSIGNMENTS
Lab skill checks
Case Based Learning
Small group activities

TOPICS:

Motor learning, Motor Theories, Motor Control Factors
Normal Development, Components of Normal Movement, Reflexes and Reactions, Abnormal Development
Sensory stimulation techniques
Basic Principles of Treatment, Physical Therapy Techniques
PNF
NDT
Associate Problems
Parkinson
Multiple Sclerosis
Frenkel's Exercises
Spinal Cord Injury
Traumatic Head Injury-