Appendix A

Each of the following sub-appendices contains a detailed chart of course description, competencies & learning outcomes revisions described within the Probe notice documentation.

A1- PHTA 1110: Introduction to Physical Therapy
A2- PHTA 1120: Patient Care Skills
A3- PHTA 1130: Functional Anatomy and Kinesiology
A4- PHTA 1140: Physical Therapy Procedures I
A5-PHTA 2110: Pathology I
A6- PHTA 2120: Rehabilitation I
A7- PHTA 2130: Physical Therapy Procedures II
A8- PHTA 2140: Clinical Education I
A9- PHTA 2150: Pathology II
A10- PHTA 2160: Rehabilitation II
A11- PHTA 2170: Kinesiology II
A12- PHTA 2180: Clinical Education II
A13- PHTA 2190: Clinical Education III
A14- PHTA 2200: Physical Therapist Assistant Seminar

A1- PHTA 1110: Introduction to Physical Therapy

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
	Define physical therapy.	Define physical therapy and the characteristics of the physical therapy profession.
	Describe the characteristics of a profession.	Summarize the Physical Therapy Standards of Practice.
	Discuss the history of the profession of physical therapy and the APTA.	
	Describe the structure and function of the APTA.	
	Describe the benefits of belonging to the APTA and the rights and privileges of the PTA.	
	Describe the function of the Federation States Board of Physical Therapy.	
~~Consider and discuss~~ Recognize professionalism and the core values of the ~~profession of physical therapy~~ physical therapy profession.		Compare & contrast the scope of practice of the physical therapist and the physical therapist assistant.
~~Consider~~ Justify the importance of integrity in all interactions with patients, family members, caregivers, supervising physical therapists, coworkers, other health care providers, students, other consumers, employers, and payers.		Describe the Technical College System of Georgia's Work Ethics Program.

~~Consider~~ Relate the importance of social responsibility, citizenship, and advocacy, including participation in community and service organizations and activities to the role of a PTA.		Analyze the role of the PTA in the provision of patient-centered and interprofessional collaborative care.
		Identify career development and lifelong learning opportunities, including the role of the physical therapist assistant in the clinical education of physical therapist assistant students.
~~Discuss~~ Describe the laws, federal and state regulations, policies, standards, and legal liabilities ~~of practice~~ related to ~~practice of~~ physical therapy practice.	Discuss legal liability relative to physical therapy practice.	Implement, in response to an ethical situation, a plan of action that demonstrates sound moral reasoning congruent with core professional ethics and values.
Relate the standards of Practice for Physical Therapy, Code of Ethics, Guide for Professional Conduct, Standards of Ethical Conduct, Guide ~~for~~ to the conduct of the PTA.	Relate the process of ethical decision-making.	Describe aspects of organizational planning and operation of the physical therapy service.
	Discuss ethical and legal elements of death and dying.	Describe aspects of risk management and performance improvement activities (quality assurance).
	Demonstrate understanding of Risk Management in PT practice, Universal Precautions.	Demonstrate the process for reporting suspected cases of abuse for vulnerable populations, and suspected cases of fraud and abuse related to the utilization of and payment for physical therapy and other health care services.
	Take appropriate action in an emergency situation.	
~~Define and describe~~ Describe styles of communication – passive, assertive, aggressive, verbal and non-verbal.	Understand the power of non-verbal communication – posture, presentation.	Recognize intergenerational communication difficulties that represent cultural differences.
~~Understand~~ Recognize the need to modify communication, and demonstrate active listening skills [restatement, reflection, clarification] ~~to meet the needs of~~ in response to different audiences and situations.		
~~Discuss~~ Explain cultural competency and the best practices for providing culturally competent and culturally proficient care.		Define culture and cultural identity
		Identify one's own culture and set of cultural beliefs
		Define Ethnocentricity – labeling

		Describe elements of cultural competency spectrum.
		Collect data from patients, family members and caregivers without prejudice.
		Recognize cultural characteristics of other groups.
		Recognize cultural values and belief systems that influences patient health behaviors.
		Identify, respect, and act with consideration for patients'/clients' differences, values, preferences, and expressed needs in all work-related activities.
~~Discuss~~ Analyze the ~~health~~ disparities in health care and strategies to reduce and eliminate health disparities.		Define Health Disparities.
		Identify the impact of cultural competence on eliminating health disparities.
		Demonstrate the PTA's use of the PT plan of care.
		Identify the components of the International Classification of Functioning, Disability and Health (ICF) to describe a patient's/client's impairments, activity and participation limitations.
		Describe the components of, and the role of the PTA within the Patient/Client Management Model used in physical therapy practice.
		Describe the various Health Care Organization Systems and their impact on services provided by the PTA.
		Summarize practice issues having an impact on the PTA
		Outline non-traditional and emerging roles of the physical therapist and their impact on the physical therapist assistant.
		Describe the role of physical therapy in promotion of healthy lifestyles, wellness, and injury prevention.
		Identify professional and community organizations that provide opportunities for volunteerism, advocacy and leadership.

~~Discuss~~ Explain the importance of research, health care literature and evidence-based practice.		Describe human and material institution-based resources and services to provide high-quality, efficient and cost-effective physical therapy services.
		Understand the forms of literature available to consumers of physical therapy and rehabilitation practitioners.
		Identify and integrate appropriate evidence-based resources to support clinical decision-making for progression of the patient within the plan of care established by the physical therapist.

A2- PHTA 1120: Patient Care Skills

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
Discuss the importance of documentation for risk management in physical therapy practice.	Discuss the importance of quality assurance and risk management.	Collect data and related information (e.g. chart review, case conference, patient/ family interviews) to provide appropriate input to the physical therapist towards discharge planning.
Describe the essential components of defensible documentation.	Demonstrate skill in scheduling patients for treatment appointments.	Describe the role of quality assurance and risk management in delivery of physical therapy services.
Discuss common formats of documentation used in physical therapy practice.	Describe the importance of proper positioning in the management and prevention of various conditions including skin breakdown, joint damage, and soft tissue contractures.	Describe the role of the multi-disciplinary team in rehabilitation.
Discuss the importance of time management and timely documentation.	Demonstrate skill in assessment of anthropometrical characteristics.	Demonstrate clear and concise communication including giving instructions.
Describe various methods of reimbursement for treatment interventions, including knowledge of ICD-10 and CPT codes.	Discuss factors that cause changes in vital signs.	Demonstrate a variety of teaching strategies to facilitate learning.
Discuss the importance of proper posture and body mechanics in delivering safe and effective interventions.	Demonstrate proper gait sequence for available assistive gait devices.	Adapt teaching methods to accommodate for cultural differences, ex; age, ethnicity, disability, education level, etc.
Describe various types of patient transfers commonly used in physical therapy practice.		Describe tools used in the assessment of orientation.
Demonstrate safe and effective transfer techniques on a patient simulator.		Discuss factors that cause changes in vital signs, including the role of physical therapy interventions.
Describe the levels of assistance required for transfers including how level of assistance is determined.		Demonstrate proper positioning techniques commonly used in the management and prevention of various conditions including skin

		breakdown, joint damage, and soft tissue contractures.
Demonstrate proper measuring and fitting techniques for various commonly used gait assistive devices.		Describe proper body mechanics, including proper posture, used during patient management techniques.
Demonstrate proper guarding techniques during gait and transfers.		Discuss the advantages, disadvantages, common uses, and rationale for various types of patient transfers.
		Discuss legal safety requirements for various clinical settings, including home health, school system.

A3- PHTA 1130: Functional Anatomy and Kinesiology

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
Discuss the laws of motion and their application to human biomechanics.	Define biomechanical terminology.	Identify the plane and axis of motion for a given movement in the human body.
Identify the forces of that act upon the human body during movement.	Define a lever and its essential components.	Define common terms used in biomechanics and kinesiology.
Define osteology and osteological terminology.	Explain the functions of bone.	Define simple machines, levers and their essential components.
Categorize joints according to their types and amount of motion that is present (classic and accessory).	List the different types of bone.	Identify bones and boney landmarks of the human body on a skeleton and diagram.
Describe the ~~design~~ structure of skeletal muscle and include attachment and fiber arrangements.	Classify bones according to their location within the appendicular or axial skeleton.	Demonstrate accurate palpation of boney prominences of the human body on a patient simulator.
List factors which influence the amount of tension a muscle is able to exert by properly describing passive and active insufficiency.	Identify each bone in the body on a skeleton or a diagram, and on fellow students.	Identify the major ligaments for each joint and discuss their function.
Describe ~~and show the following~~ types of muscle contraction including isometric, isotonic/dynamic, isokinetic, eccentric, and concentric.	Locate each boney prominence of the human body on a skeleton or diagram, and on fellow students.	Palpate major ligaments on a patient simulator.
List origins and insertions of ~~isolated~~ given muscles ~~in upper extremities and lower extremities~~ human body.	List types of diarthrodial joints and identify their degrees of freedom, axis, planes and motions (classical and accessory).	Describe the scapulohumeral rhythm and its importance to shoulder motion.
Describe normal actions of ~~isolated upper extremity and lower extremity~~ given muscles in the human body.	Define myology.	List the companion motions of the shoulder complex and relate them to functional activities.
Describe innervations of ~~isolated upper extremity and lower extremity~~ given muscles in the human body.	Identify and describe the three types of muscles.	Describe the length-tension relationship in muscle and relate this to functional activities.
Perform goniometric and functional measurements of upper extremities and lower extremities.	Describe a motor unit and the process it undergoes to produce a muscle contraction.	Define reversal of muscle function and give a functional example.

	Explain the structure and function of efferent and afferent neurons.	Demonstrate accurate palpation of muscles of the upper and lower extremity, shoulder and pelvic girdle, temporomandibular joint and neck.
	Explain muscle spindles and golgi tendon organs and their functions.	Perform proper measurement of gross strength and range of motion testing.
	Describe the anatomic basis for reflex movement.	Describe a motor unit and the process it undergoes to produce a muscle contraction.
	Palpate major muscle groups of upper extremities and lower extremities.	Explain the structure and function of efferent and afferent neurons.
		Identify and describe the dermatomes of the human body.
		Perform range of motion examination of all joints and distinguish between normal and abnormal end-feels.

A4- PHTA 1140: Physical Therapy Procedures I

Revised Course Hours

	Lecture Time	Regular Lab Type	Regular Lab Time	Other Lab Type	Other Lab Time	Total Contact Hrs
Contact Hrs/Week	~~2hrs~~ 1hrs	N/A	0hrs	Practicum	6hrs	~~8hrs~~ 7hrs
Contact Mins(Hr)/Semester	~~1500mins~~ 750mins		0mins		4500mins	~~120hrs~~ 105hrs
				Lecture Credit Hrs	Lab Credit Hrs	Total Credit Hrs
Semester Credit Hrs				~~2hrs~~ 1hrs	2hrs	~~4hrs~~ 3hrs

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
Explain sensory assessment in ~~upper and lower extremity dermatomes~~.	Explain methods by which germs may enter the body and are discharged from the body.	Define terminology associated with the integumentary system, skin assessment, and sensory response.
~~Apply~~ Demonstrate proper procedure for skin and sensory assessment.	Demonstrate proper hand washing techniques.	Differentiate scar tissue characteristics (e.g., banding, pliability, sensation, texture).
Define medical asepsis standard precautions, and personal protective equipment, as it relates to infection control.	List indications for personal protection equipment and demonstrate the proper application, removal and disposal techniques.	Consider factors that affect healing and tissue repair, such as inflammation, phases of healing, and infection.
~~Demonstrate~~ Discuss appropriate procedures for administering sterile whirlpool treatments.	Describe and demonstrate proper isolation techniques and universal precautions.	Explain the chain of infection as defined by the CDC.
~~Describe~~ Explain methods of heat transfer.	Discuss reasons for applying dressings.	Demonstrate medical asepsis.

Explain the physiological effects of heat and cold.	Demonstrate the correct technique for application and removal of dressing or agents.	Demonstrate donning and doffing as well as disposal techniques, related to contact, droplet, airborne, and blood-borne pathogens.
~~Identify~~ List the indications and contraindications for ~~thermotherapy~~ cryotherapy and thermotherapy.	List indications and contraindications and suggested pressure parameters.	Interpret when to utilize proper isolation techniques and standard precautions.
Discuss factors ~~which~~ that influence production of erythema.		Discuss dangers of contamination in non-sterile environments.
Describe ~~and demonstrate~~ proper application of hot packs.		Discuss appropriate procedures for administering whirlpool treatments.
~~Demonstrate~~ Discuss paraffin unit cleaning and paraffin mixture replacement.		Compare and contrast various pathogens (contact, droplet, airborne, blood-borne), mode of transmission, and body systems affected.
~~Instruct a patient in safely applying paraffin~~ Review safe application of paraffin at home, with effective education using the teaching methods commensurate with the needs of the learner.		Define medical terminology as it relates to wound care.
~~Describe and demonstrate~~ Examine proper application of ~~contrast baths~~ paraffin.		Identify wound type based on appearance.
~~Demonstrate~~ Explain proper application of shortwave diathermy.		Distinguish viable versus nonviable tissue, and wound staging.
Accurately collect data to quantify the patient's response to ~~interventions~~ deep thermal agents.		Demonstrate non-selective debridement techniques (wet, wet to dry, wet to moist, and hydrogels) with dressings and wound coverings.
Safely progress deep thermal agents by applying current knowledge, theory, and clinical judgement. ~~the patient intervention through the plan of care.~~		Classify the different degrees of burns.
Discuss the various safe and beneficial range~~s~~ of water temperature levels for ~~the~~ different kinds of patients.		Explain the “Rule of Nines”.
Discuss proper application of UV ~~methods of~~ cleaning of equipment and ~~maintaining~~ determining ~~UV lamp~~ MED.		Compare immediate burn care and intermediate burn care.
~~Demonstrate~~ Discuss proper application of infrared.		Recognize complications that might occur with burns.
Demonstrate proper preparation of the treatment ~~booth~~ area, patient and therapist.		Discuss physical therapy’s role regarding burn care.
		Define medical terminology as it relates to superficial thermal agents.
		Demonstrate proper application of hot pack to competency.

		Discuss proper application of paraffin.
		Demonstrate proper application of paraffin.
		Apply precautions and contraindications for various interventions (superficial/deep thermal agents, athermal agents, electromagnetic radiation, and therapeutic massage).
		Discuss when an intervention should not be performed due to clinical indications or when the direction to perform the intervention is beyond that which is appropriate for the physical therapist assistant.
		Differentiate when an intervention should not be performed due to clinical indications or when the direction to perform the intervention is beyond that which is appropriate for the physical therapist assistant.
		Integrate evidence-based resources to support clinical reasoning.
		Perform integumentary assessment pre and post application of cryotherapy, hot packs, and ultrasound.
		Discuss how to modify treatment techniques/parameters in the presence of abnormal reactions.

A5-PHTA 2110: Pathology I

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
Explain integumentary integrity, and its relationship to immune function.	Define inflammation and explain its important.	Classify types pathogens.
Classify ~~types~~ causes of infectious diseases.	Discuss the changes which take place with inflammation.	Relate the chain of infection to various infectious diseases.
Define atrophy, ~~and list common causes of atrophy~~ physiological hypertrophy, and pathological hypertrophy.	List signs of inflammation.	Differentiate features of specific tissue healing and timeline.
Explain the structure, ~~and~~ function, and components of the cardiovascular system, including review of coronary artery blood flow. ~~of blood.~~	Define edema and discuss its effects.	Illustrate the concepts of the IFC model with pathophysiological processes, health, illness, and disability.
~~Characterize the~~ Review the anatomy and function~~s~~ ~~and components~~ of the ~~cardiovascular system~~ the heart.	Identify and discuss factors which can cause edema.	Identify clinical indicators that would affect the PT plan of care.

~~Define~~ ~~pathology, etiology, diagnosis~~ interventions, prognosis, and ~~symptom~~ outcomes associated with cardiac pathologies.	Recognize the functions and components of the hematologic system.	Explain various musculoskeletal pathologies, incidence and prevalence, etiology, pathogenesis, clinical indications, and implications for the PTA.
~~Recognize~~ Explain the structure, functions and components of the respiratory system.	Distinguish the functions and components of the digestive system.	Identify various medical and lab tests for conditions associated with musculoskeletal pathologies.
~~Recognize~~ Explain the structure, functions and components of the gastrointestinal, renal and urologic, hepatic and biliary, endocrine and metabolic, and genital and reproductive systems.	Recognize the functions and components of the renal and urologic systems.	Explain interventions, prognosis, and outcomes associated with various musculoskeletal pathologies.
List the common warning signs of cancer and red flags.	Characterize the functions and components of the endocrine system.	Compare abnormal joint movement, muscle tone, and biomechanics as it relates to musculoskeletal function.
~~Point out~~ Explain the side effects of cancer treatment.	Examine the functions and components of the integumentary system.	Define a cardiac rehabilitation program.
~~Relate~~ Explain the structure, ~~the~~ functions, and components of the immune and lymphatic systems.	Point out general causes of disease and methods of disease diagnosis.	Discuss effects of exercise including energy consumption, heart rate, cardiac output, stroke volume, and pulmonary ventilation.
Recognize common medications for pain and inflammation, musculoskeletal conditions, cardiopulmonary, immune modulation and cytotoxic agents, antimicrobial and antiviral medications, endocrine and metabolic disorders and GI disorders ~~and diseases.~~	Differentiate between acute disease and chronic disease.	Identify various medical and lab tests for conditions associated with cardiovascular pathologies.
	Differentiate structural and functional disease.	Classify phases of a cardiac rehabilitation program including goals, exercise testing, “target rate” and “training effect”.
	Define hypertrophy and differentiate between physiological and pathological hypertrophy.	Identify signs and symptoms of respiratory distress.
	Characterize the function and structure of lymph nodes and vessels.	Examine the incidence, prevalence, etiology, pathogenesis, and clinical indications as it relates to pulmonary conditions and pathologies.
	Define lymphedema and describe the pathogenesis as a consequence of cancer treatment.	Identify various medical and lab tests for conditions associated with respiratory pathologies.
	Define lymphedema and describe the pathogenesis as a consequence of cancer treatment.	Differentiate between a normal and abnormal exercise response.
	Examine the anatomy of the heart and explain how blood is circulated throughout the body.	Identify various medical and lab tests for conditions associated with the gastrointestinal, renal and urologic, hepatic and biliary,

		endocrine and metabolic, and genital and reproductive systems.
	Examine the anatomy of arteries and veins.	Examine the normal physiological changes related to pregnancy.
	Relate the coronary artery supply to the heart.	Discuss side effects and precautions related to diminished immune response with various cancer treatments.
	Describe symptoms of cardiac disease and heart block.	Determine adjustment of treatment interventions and mobility related to immune system dysfunction.
	Relate causes of heart disease.	Define lymphedema and describe the pathogenesis as a consequence of cancer treatment.
	Identify forms of heart disease.	Categorize various types of cancers.
	Explain essential and secondary hypertension.	Differentiate various causes of lymphedema and treatment approaches.
	Classify forms of arteritis.	
	Describe aneurysms and explain etiology and treatment.	
	Explain the purpose of a transfusion.	
	Discuss varicose veins and hemorrhoids.	
	Examine the etiology, clinical picture, and treatment of HTN, CAD, MI, Angina, CHF and arrhythmias.	
	Examination of circulation, respiration and ventilation.	
	Examine the etiology, clinical picture, and treatment of COPD, TB, pneumonia, bronchitis, emphysema, and asthma.	
	Characterize carcinoma of the breast and its effects on the musculoskeletal system, especially of the upper extremity.	
	Discuss etiology and symptoms of gall stones and cholecystitis.	
	Explain the function of the endocrine system.	
	Relate the location, structure, function, and consequence of malfunction of the pituitary gland, thyroid gland, parathyroid glands, Islets of Langerhans, and adrenal gland.	
	Examine the etiology, clinical picture, and treatment of diabetics mellitus.	
	Classify types of dermatitis.	

	Classify the different degrees of burns.	
	Explain the "Rule of Nines."	
	Relate the formation of bone.	
	Recognize the components of a joint.	
	Point out the most advantageous positions of joint fixation at various joints.	
	Differentiate between the types of joint and bone disease.	
	Relate the bone healing process.	
	Define arthritis.	
	Define chronic arthritis and describe its effect on specific joints.	
	Recognize congenital deformities and describe the etiology.	
	Classify various specific congenital deformities with regard to incidence, clinical picture, cause, and overall prognosis.	
	Classify types of scoliosis including progressive, non-progressive, functional, and structural curves.	
	Relate the etiology of scoliosis.	
	Use exercises for a scoliosis patient and discuss the goals of treatment.	
	Examine circulation, respiration and ventilation.	
	Characterize indigestion.	
	Characterize vomiting and explain its causes.	
	Recognize bladder function tests.	
	Recognize the hormone and enzymes secreted by the pancreas.	
	Describe catheter care as it pertains to PT.	
	Compare immediate burn care and intermediate burn care.	
	Point out complications that might occur with burn patients.	
	Discuss physical therapy's role regarding burn patients.	
	Recognize psychological effects involved in burn care.	
	Relate the normal changes in pregnancy.	
	Respond effectively to patient and environmental emergencies.	

A6- PHTA 2120: Rehabilitation I

Revised Course Length

	Lecture Time	Regular Lab Type	Regular Lab Time	Other Lab Type	Other Lab Time	Total Contact Hrs
Contact Hrs/Week	~~1hrs~~ 2hrs	N/A	0hrs	Practicum	6hrs	~~7hrs~~ 8hrs
Contact Mins(Hr)/Semester	~~750mins~~ 1500mins		0mins		4500mins	~~105hrs~~ 120hrs
				Lecture Credit Hrs	Lab Credit Hrs	Total Credit Hrs
Semester Credit Hrs				~~1hrs~~ 2hrs	2hrs	~~3hrs~~ 4hrs

Revised Course Description

This course provides instruction in exercises and rehabilitation techniques commonly utilized by physical therapist assistants. Topics include functional mobility and training; rehabilitation techniques for musculoskeletal disorders; gait training and assistive devices; home management, community, and work reintegration; and health promotion, wellness and prevention. Course content will be presented through lectures, discussions, audio-visual materials, case studies, class and/or laboratory projects, small group study activities, interactive labs, library assignments, field trips, guest speakers, and tests. This course is web- enhanced utilizing the Blackboard learning platform.

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
Compare methods of achieving the goal of a therapeutic exercise program~~'s goal..~~	Recognize various wheelchair components and their management.	Describe exercise specificity.
~~Relate~~ Describe the process of setting up an exercise program including goals, patient progression, exercise tolerance assessment, and application methods.	Predict various architectural barriers for the wheelchair bound patient.	Demonstrate safety in implementing the following therapeutic exercise: a. Body mechanics b. Developmental activities c. Balance and coordination training d. Aerobic conditioning e. Conditioning and reconditioning f. Range of motion exercises g. Stretching exercises h. Strengthening exercises
List ~~and discuss~~ contraindications and precautions of exercise programs.	Discuss the effects of ROM exercises.	Explain the stages of motor learning and how it relates to patient care.
~~Discuss~~ Explain the effects of passive, active assistive and active-~~assistive~~ ROM exercises.	Discuss proper dressing techniques for patients with various problems.	Describe the stages of soft tissue healing and the physical therapy management during each phase of healing.
Demonstrate applications of techniques used in passive, active-assistive, active, and resistive exercises to different joints using standard physical therapy protocols.	Instruct patient on proper way to perform bed mobility and transfer.	Compare the stages of soft tissue healing and the physical therapy management during each phase of healing.

Define isokinetic ~~and isometric exercises.~~	Describe an ADL training program and select appropriate assistive devices.	Develop therapeutic exercise programs taking into account physiological and mechanical factors, all indications, precautions and contraindications from diagnostics, pathology and injury.
Demonstrate ~~isokinetic and~~ isometric exercise on various parts of body.	Effectively collect data to quantify the patient's response to interventions.	Utilize standard physical therapy treatment protocols for connective tissue, muscles, bones, and post-surgical conditions.
~~Perform~~ Describe isokinetic exercise using isokinetic ~~exercise~~ equipment.	Safely progress the patient interventions through the plan of care.	Describe various musculoskeletal injuries for various joints in the body (vertebrae, shoulder, elbow, wrist, hand, hip, knee, ankle and foot). a. Identify medical management of those injuries b. Identify orthopedic special test for musculoskeletal injuries
List ~~and discuss~~ contraindications and precautions of exercise programs.	Determine indications for ambulation and procedures necessary to prepare a patient to ambulate.	Discuss various types of bone injury to include: a. Medical management of the injury b. Physical therapy management of the injury
	Define common terminology used in progressive ambulation including weight bearing status.	Demonstrate safety in performance and instruction in therapeutic exercises with simulated patient scenario.
	Instruct patient on the proper way to perform bed mobility and transfers using various assistive devices.	Describe the components of exercise program for lymphedema.
	Implement a tilt table treatment which includes the transfer, patient set-up and treatment, and the transfer back.	Develop therapeutic exercise programs for lymphedema.
	Demonstrate safe technique for ambulating a patient in parallel bars including equipment adjustment, patient instruction, and correctly guarding the patient.	Explain the guidelines for lymphatic drainage exercises.
	Demonstrate safe technique for ambulating a patient in parallel bars including equipment adjustment, patient instruction, and correctly guarding the patient.	Select exercises for lymphatic drainage.
	Use proper gait patterns on level surfaces and stairs.	Demonstrate exercises for lymphatic drainage.
	Describe a gait training program and select appropriate assistive devices.	Explain emergency response to potential life-threatening situations for persons with musculoskeletal conditions

		Interpret overall functional level of patient
		Analyze different techniques used to train patients in personal care, ADL, home management and integration in work/school, social/civic life, and community
		Describe the training techniques for employment purposes and for re-integration into the community
		Teaches the patient and/or caregiver how to perform at home when appropriate, including best practice in ergonomics and written instructions in patient simulated cases
		Assess barriers to accessibility within the home, work, school and community for patients with mobility challenges.
		Instruct a caregiver or family member in various therapeutic management techniques.
		Construct interview questions that facilitate data collection for persons with musculoskeletal conditions.
		Compose accurate documentation that reflects the therapeutic management performed.
		Determine the appropriate communication with a supervising physical therapist that demonstrates effective ongoing collaboration.
		Develop effective communication strategies for all stakeholders involved in the therapeutic management of patients.
		Demonstrate communication of any changes in patient/client status to the Physical Therapist in a patient simulated case scenario.
		Identifies the appropriate intervention based on the POC for musculoskeletal conditions.
		Demonstrates techniques of therapeutic exercise outlined in the physical therapist plan of care and based on the protocol.
		Discuss the importance of lab values and physical therapy.

		Explain the potential impact medications have on patients with musculoskeletal conditions.
		Interpret data collection to quantify the patient's response to interventions for musculoskeletal conditions.
		Discuss when an intervention should not be performed due to clinical indications or when the direction to perform the intervention is beyond that which is appropriate for the physical therapist assistant.
		Determine when an intervention should not be performed due to clinical indications or when the direction to perform the intervention is beyond that which is appropriate for the physical therapist assistant.
		Integrate evidence-based resources to support clinical reasoning.
		Identify the types of imaging studies used in the orthopedic setting.
		Summarize the goals of a Cardiac Rehabilitation program.
		Explain the "Training Effect" and the desired physiologic responses to Cardiac Rehabilitation.
		Describe the three phases of a typical Cardiac Rehabilitation program.
		Determine appropriate exercise parameters for patients in each phase of Cardiac Rehabilitation, including target heart rate.
		Demonstrate various conditioning exercises appropriate for patients in each phase of Cardiac Rehabilitation
		Assess patient's response to conditioning exercise including monitoring vital signs.
		Recognize abnormal physiologic response to conditioning exercise.
		Determine appropriate modifications of conditioning interventions based on patient's response, including when an intervention should be stopped or not performed.

		Identify indications, precautions, and contraindications for cardiac rehabilitation.
		Describe common therapeutic considerations following medical and surgical management for patients with cardiac pathology including sternal precautions.
		Describe the purpose, mechanism, and side effects of common pharmacologic agents used in management of cardiac conditions and their impact on the plan of care.
		Identify the components of the gait cycle.
		Determine the major muscle groups which are active in each phase of normal gait.
		Articulate the indications and contraindications of peripheral joint mobilization.
		Safely performs Grade I and Grade II peripheral joint mobilization on various joints of the body.

A7- PHTA 2130: Physical Therapy Procedures II

Revised Course Hours

	Lecture Time	Regular Lab Type	Regular Lab Time	Other Lab Type	Other Lab Time	Total Contact Hrs
Contact Hrs/Week	~~2hrs~~ 1hrs	N/A	0hrs	Practicum	6hrs	~~8hrs~~ 7hrs
Contact Mins(Hr)/Semester	~~1500mins~~ 750mins		0mins		4500mins	~~120hrs~~ 105hrs
				Lecture Credit Hrs	Lab Credit Hrs	Total Credit Hrs
Semester Credit Hrs				~~2hrs~~ 1hrs	2hrs	~~4hrs~~ 3hrs

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
~~Debate~~ Explain theories of pain control and how they relate to ~~TENS and~~ alleviation of pain.	Compare pain assessment tools.	Review the physiology of pain, nociception, and the nociceptive system.
Demonstrate various pain assessment tools utilizing proper procedure~~s for pain assessment~~ and appropriate documentation.	Define traction and point out indications for applying traction.	Differentiate between various types and sources of pain.
Demonstrate proper ~~application~~ technique for ~~of~~ EMG biofeedback ~~procedure.~~	Compare intermittent traction, constant traction, and manual traction; list advantages and disadvantages of each.	Explain the role of physical agents in pain management.

	Compare advantages and disadvantages of horizontal and vertical traction.	Review principles of physics related to electricity and electrotherapeutic physical agents including the fundamental properties of electrical charge and the relationship between current, voltage, and resistance.
	Recognize contraindications for traction.	Discuss electrophysiological responses to electrical stimulation.
	Recognize contraindications for intermittent cervical traction (ICT).	Compare types of therapeutic electrical current including representative waveforms and waveform characteristics.
	Recognize methods of applying ICT.	Identify applications for the different types of therapeutic electrical currents.
	Relate the sitting position for ICT.	Discuss the development and propagation of the action potential in nerve tissue.
	Perform a safe application including proper adjustment of head halter and any other necessary adjustments of ICT in the supine position.	Discuss the strength-duration curve and its application for the delivery of therapeutic electrical currents.
	Identify indications for intermittent pelvic traction (IPT).	Compare various types of electrodes used with electrotherapeutic physical agents and the appropriate uses for each including skin preparation, placement configurations, and the concept of current density.
	Perform a safe application of IPT including proper positioning, necessary	Identify indications for the use of therapeutic electrical currents.
	Demonstrate and instruct patient in using traction at home.	Discuss contraindications and precautions for the use of therapeutic electrical currents.
	Describe peripheral vascular compression apparatus purpose, effects, measurement, and fitting procedure	Identify potential adverse reactions to the use of electrotherapeutic physical agents and the appropriate response.
	Review circulation and purpose of lymphatic system.	Discuss the effect of stimulus frequency on the type of muscle contraction produced.
	Define lymphedema and describe the pathology.	Explain different parameter settings to achieve therapeutic results in neuromuscular electrical stimulation applications.
	Demonstrate safe peripheral vascular compression apparatus application.	Explain different electrode placement configurations used in neuromuscular electrical stimulation applications.
	Articulate indications, contraindications, and suggested	Demonstrate proper technique for various neuromuscular electrical stimulation applications.

	pressure parameters for peripheral vascular compression apparatus.	
	Demonstrate complete compression therapy treatment procedure including pre-and post-treatment procedures.	Apply the clinical decision making process to parameter modification during treatment to achieve optimal results for various neuromuscular electrical stimulation applications.
	Explain purpose of peripheral vascular compression garments.	Differentiate between electrical stimulation and EMG biofeedback.
	Demonstrate ability to accurately measure a patient for compression garments.	Accurately collect data to quantify patient's response to neuromuscular electrical stimulation applications.
	Accurately collect data to quantify the patient's response to interventions.	Discuss the mechanisms underlying the use of therapeutic electrical current for the modulation of pain.
	Safely progress the patient intervention through the plan of care.	Explain different parameter settings and waveforms used in various applications for pain modulation.
	Define TENS and the rationale.	Explain different electrode configurations used in various applications for pain modulation.
	Define cosine law.	Demonstrate proper technique for various applications for pain modulation using therapeutic electrical current.
	List indications and contraindications for TENS.	Apply the clinical decision-making process to parameter modification during treatment to achieve optimal results for pain modulation.
	Demonstrate parameter adjustments such as intensity, pulse rate, pulse width, and wave forms.	Accurately collect data to quantify patient's response to electrical stimulation for the modulation of pain.
	Demonstrate proper application of TENS.	Define traction.
	Instruct patient and family member in home use of TENS.	Compare mechanical and manual traction, including advantages and disadvantages of each.
	Explain the electron theory of electricity.	Explain clinical indications for the use of mechanical traction.
	Define static electricity and explain how it is produced.	Explain different parameter settings for the use of mechanical traction.
	Differentiate between static and current electricity.	Compare and contrast intermittent and static mechanical traction.
	Define OHM's law (I=E/R) and explain how it applies to treating the human body.	Discuss contraindications and precautions for mechanical traction.
	Define electromotive force and potential difference.	Perform a safe and effective mechanical traction treatment for the cervical and lumbar spine.
	Explain methods of current flow and ways to measure it.	Apply the clinical decision-making process to parameter modification during treatment to achieve optimal results for mechanical traction.

	Define resistance.	Accurately collect data to quantify patient's response to mechanical traction.
	Differentiate between conductors and insulators.	Define compression.
	List methods of decreasing skin resistance.	Discuss the application of compression forces for therapeutic use.
	Define direct current (DC) and alternating current (AC).	Explain clinical indications for the use of therapeutic external compression.
	List the characteristics of each of the above.	Discuss the physiological effects of the application of therapeutic external compression.
	Explain sinewave, pulse wave, square wave, continuous modulation, surging modulation, and interrupted modification, as applied to AC or DC currents.	Discuss contraindications and precautions for the use of compression.
	Discuss ways to prevent burns and electric shock.	Explain different parameter settings for the use of therapeutic external compression.
	Define continuous DC and explain its purpose.	Perform a safe and effective therapeutic external compression treatment.
	Define effects of polarity.	Apply the clinical decision-making process to parameter modification during treatment to achieve optimal results for the use of therapeutic external compression.
	Discuss the effect of polarity on the human body.	Accurately collect data to quantify patient's response to therapeutic external compression.
	List indications for continuous DC.	
	Define interrupted DC and explain its purposes.	
	List indications for interrupted DC.	
	Explain requirements to produce muscle contraction with electrical stimulation	
	Define motor point and explain purpose of motor point stimulation.	
	Define alternating current and list its primary purpose.	
	Define twitch, pulse, and tetany and explain effects of frequency of stimulation of muscles.	
	Define continuous AC.	
	List indications for continuous AC.	
	Define surging AC and list indications.	
	Define interrupted AC and list indications.	

	Explain the effects of unipolar technique and bipolar technique of electrode placement.	
	List factors which affect current density.	
	List contraindications for electrical stimulation.	
	Interpret and manipulate the parameters of low voltage and high voltage equipment.	
	Demonstrate motor point stimulation with a unipolar technique and locate motor points accurately.	
	Prepare skin correctly for above treatment with electrical stimulation.	
	Demonstrate motor point stimulation with a bipolar technique.	
	Describe the current, wave form, and the parameter in high voltage stimulation.	
	Demonstrate muscle stimulation with unipolar or bipolar technique using high voltage equipment.	
	Demonstrate a sterile high voltage treatment.	
	Explain various diagnostic tests including a NCV, EMG and strength duration curve, and Jolly test.	
	Explain biofeedback and list indications and contraindications.	
	List indications and contraindications.	
	Describe parameter adjustments.	
	Demonstrate proper HSA treatment including selecting, locating, and treating points.	
	Accurately collect data to quantify the patient's response to interventions.	
	Safely progress the patient intervention through the plan of care.	
	Differentiate between static and dynamic splints.	
	List indications, contraindications, and follow-up precautions for splints.	
	Demonstrate proper basic splint application as related to physical therapy treatments.	

	Accurately collect data to quantify the patient's response to interventions.	
	Safely progress the patient intervention through the plan of care.	

A8- PHTA 2140: Clinical Education I

Course Revised Description

This course provides students with the opportunity to observe and practice skills learned in the classroom and laboratory at various clinical settings for physical therapy practice. Students will be supervised by a clinical instructor who is either a licensed physical therapist or licensed physical therapist assistant. Topics include preparation of patients, treatment areas, and equipment; vital signs and sensory assessment; wound care and personal protection; transfers, body mechanics, and assistive devices; application of physical agents; goniometric measurements; therapeutic massage; interpersonal and communication skills; principles of teaching and learning; documentation; and modification of interventions within the plan of care.

Due to the nature of the clinical education experience, clinical competency skills that are covered in PHTA 2180 and/or 2190 may be addressed in PHTA 2140. Success in the course requires students require no more than 75% assistance with competency skills and no more than 50% assistance with all critical skills (communication, clinical behaviors, safety, accountability, & clinical problem solving).

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
Prepare patient and treatment area observing ~~universal~~ standard precautions.	Demonstrate hot pack cleaning and worn unit replacement.	
~~Promote promote~~ Facilitate active involvement of the patient in his/her care.	Determine indications for personal protection equipment.	
Demonstrate proper ~~universal~~ standard, personal protection use, ~~precautions and~~ isolation techniques, & sterile technique when applicable.	Demonstrate the proper application and removal of dressing or agents.	
~~Recognize~~ Distinguish between normal and abnormal integumentary changes.	Demonstrate correct procedure for sterile techniques.	
~~Recognize~~ Differentiate between absent or altered sensation.	Demonstrate appropriate procedures for administering sterile whirlpool interventions.	
~~Recognize~~ Determine activities, positioning, and postures that aggravate or relieve pain or altered sensations.	Demonstrate skill in measurement of standard vital signs.	
Demonstrate proper application ~~of the following~~ superficial, deep thermal physical agents and athermal agents. ~~: a) hot packs, b) cold packs, c) paraffin, d) contrast baths, e) whirlpools, f) ultrasound, g) shortwave diathermy, h) UV and i) IR.~~	Demonstrate skill in assessment of anthropometrical characteristics.	
~~Relate~~ Articulate effects, indications, and contraindications ~~of the following~~ superficial, deep thermal physical agents and	Effectively educate others using teaching methods commensurate with the needs of the learners.	

athermal agents. ~~: a) hot packs, b) cryotherapy, c) paraffin, d) contrast baths, e) hydrotherapy, f) ultrasound, g) shortwave diathermy, h) UV and i) IR.~~		
Follow professional behaviors, conduct, actions, attitudes, and values. ~~consistent with the roles, responsibilities, and tasks of the physical therapist assistant.~~	Complete documentation that follows professional guidelines, health care system, and physical therapy setting policies.	
~~Demonstrate~~ Communicate effective instruction to the patient and others to achieve the goals and outcomes as described in the plan of care.		
Consider individual and cultural differences and respond~~s~~ appropriately in all aspects of physical therapy services.		
Provide effective ~~instruction~~ education to ~~the patient and~~ others using teaching methods commensurate with the needs of the learner to achieve the goals and outcomes as described in the plan of care.		
Apply the essential components of SOAP format for note writing that follow professional guidelines, health care system policies, and physical therapy setting policies. .		
Participate in performance improvement activities. ~~(quality assurance).~~		
~~Demonstrate~~ Follow facility policies skill in scheduling patients for ~~treatment~~ appointments.		
Observe ~~appraise~~ patient's response to intervention.		
Promote ~~cultural~~ competency and the best practices for providing culturally competent and culturally proficient care.		

A9- PHTA 2150: Pathology II

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
~~Explain~~ Review the structure, ~~and~~ function and components of the nervous system.	Examine the function, formation, and circulation of cerebrospinal fluid.	Review the body systems which support, protect, and nourish the nervous system.
~~Explain~~ Compare central nervous lesions to peripheral nerve lesions regarding ~~injuries, including anatomy, mechanism of injury,~~	Identify and describe the meninges of the brain and spinal cord.	Define: motor control, motor learning, and postural control.

~~pathology,~~ regeneration, ~~and~~ degeneration and recovery.		
~~Identify~~ Review the structure and function of the ~~motor and sensory distribution of nerves in the~~ brachial and ~~lumbar~~ lumbosacral plexuses.	Discuss the types of meningeal hemorrhages.	Relate motor control, motor learning, and postural control to common neurologic pathologies.
~~Identify~~ Review the motor and sensory distribution of peripheral nerves and nerve roots.	Describe the epidemiology and pathophysiology of traumatic head injury.	Examine various medical and surgical conditions that affect the nervous system.
~~Discuss~~ Describe the typical sequence of neuro-developmental ~~sequence~~ milestones.	Define the difference between local and diffuse injuries to the brain.	Compare typical neuro-development to atypical neuro-development.
~~List and~~ Describe ~~the~~ primitive and pathological reflexes.	Describe acute complications associated with head injury.	Describe the contribution of primitive and pathological reflexes to typical and atypical motor control and development.
~~List and~~ Describe ~~the~~ postural and righting reflexes.	Explain the functional significance of spinal cord lesion levels.	Describe the contribution of postural and righting reflexes to typical and atypical motor control and development.
~~Discuss~~ Explain the impact of behavioral and cognitive deficits ~~on the patient, the physical therapist, and physical therapist assistant~~ resulting from brain injury on the plan of care.	Describe the loss of bowel, bladder, and sexual function as related to spinal cord involvement.	Explain the role of postural and righting reactions in developing neurotherapeutic interventions.
Describe indications, types, and levels of surgical amputation for upper and lower extremities.	Identify bladder disorders which might result from spinal cord injury.	Summarize the following as it relates to pediatric pathologies: incidence, prevalence, etiology, pathogenesis, medical and surgical interventions, and clinical implications.
Explain the ~~importance of good stump~~ strategies and interventions for proper residual limb hygiene and care.	Compare central nervous lesions to peripheral nerve lesions.	Compare and contrast various types of head brain injury, including incidence, prevalence, etiology, pathogenesis, degree of injury and mechanism of injury.
~~Describe~~ Characterize phantom sensation or pain ~~and list the causes.~~ related to limb amputation.	Describe the significance of injury to individual nerves.	Examine common medical and surgical conditions associated with brain injury.
	Diagram the brachial plexus.	Describe common medical, cognitive, and behavioral assessment tools used for patients with brain injury.
	Define meningitis.	Explain the impact of behavioral and cognitive deficits resulting from brain injury on the plan of care.
	Identify etiology, symptoms, and clinical picture of poliomyelitis, encephalitis, herpes, syphilis of the nervous system, and Parkinson's disease.	Describe indications, precautions, and contraindications for patients with brain injury.

	Identify etiology, symptoms, and clinical pictures of multiple sclerosis, amyotrophic lateral sclerosis, and cerebrovascular accidents.	Characterize common intervention strategies appropriate for patients with brain injury.
	Identify etiology, symptoms, and clinical picture of cerebral palsy, muscular dystrophies, and other conditions.	Compare and contrast various types of Spinal Cord Injury, including incidence, prevalence, etiology, pathogenesis, degree of injury, and mechanism of injury.
	Identify various neuromuscular conditions with regards to incidence, etiology, prognosis, and treatment.	Relate the various levels of SCI to functional activity including transfers, mobility, and self-care.
	Describe median, ulnar, and combined nerve injuries.	Relate expected body structure and function to various levels of spinal cord injury regarding bowel and bladder, sexual, integumentary, and cardiorespiratory function.
	List three different clinical rating scales used to define recovery from traumatic head injury.	Describe indications, precautions, and contraindications for persons with spinal cord injury regarding primary and secondary impairments and potential complications.
	Describe different functional outcomes of a severe head injury.	Describe the incidence, prevalence, etiology, pathogenesis, degree of injury, and mechanism of injury for various peripheral nerve and LMN lesions and disorders including; Myasthenia Gravis, Post-Polio Syndrome, Guillain-Barre, Carpal Tunnel Syndrome, Thoracic Outlet Syndrome, Sciatica, Cauda Equina, Erb's palsy, and Diabetic Neuropathy.
	Discuss significant factors that should be considered when assessing individuals with head injury.	Relate expected body function to various locations and degrees of peripheral nerve and lower motor neuron lesions.
	Examine the psychological problems with spinal cord injured patients.	Describe indications, precautions, and contraindications for persons with peripheral nerve and lower motor neuron lesions regarding primary and secondary impairments and potential complications.
	Define cerebral palsy (CP).	Describe potential atypical patient responses to therapeutic interventions for various UMN lesions and disorders.
	Explain the causes for CP.	Characterize the role of medical and surgical interventions for management of various UMN lesions including implications for the plan of care.

	List and describe the classifications of CP.	Describe common therapeutic considerations following medical and surgical management of various UMN lesion and disorders.
	Explain various mechanisms of head injury.	Compare the pre- and post-operative and pre- and post-prosthetic functional limitations of patients with amputation.
	Describe treatment techniques used on head injury patients.	Compare the pre-operative and post-operative therapeutic management of patients with amputation.
	List and describe the various types of muscular dystrophy.	Compare the pre-prosthetic and post-prosthetic therapeutic management of patients with amputation
	Identify indications for amputation.	Describe indications, precautions, and contraindications for persons with limb amputations regarding primary and secondary impairments and potential complications.
	Discuss the levels of upper extremity amputation as related to function.	Identify the components and types of lower extremity prosthetics.
	List problems encountered with upper and lower extremity amputations.	Compare and contrast the functional capabilities of common types of lower extremity prosthetics.
	List indications for amputation.	Describe the role of commonly used medications for various medical and surgical conditions
	Explain the functional significance of various levels of amputation.	Describe the pharmacokinetics of commonly used medications that impact the physical therapy plan of care
	Discuss the physical therapy management of the amputee patient preoperatively, post-operatively, pre-prosthetically, and post-prosthetically.	Describe behavioral, cognitive, and psychosocial issues commonly observed in patients with severe or traumatic disorders.
	Demonstrate exercises for above the knee (AK) and below the knee (BK) amputee including gait training.	Explain the impact of behavioral, cognitive and psychosocial impairments on clinical care and function.
	Identify common gait deviations seen in AK and BK amputees and discuss ways to correct the deviations.	Characterize the role of medical diagnostic tools in physical therapy interventions.
	Explain potential complications of the amputee's stump.	Explain emergency response to potential life-threatening situations for persons with neurological or neuromuscular disorders.
	Perform proper stump wrapping techniques for the AK and BK in the laboratory.	

	Discuss the psycho-social problems of the amputee patient.	
	Recognize common medications for management of neurologic disorders and diseases.	

A10- PHTA 2160: Rehabilitation II

Revised Course Length

	Lecture Time	Regular Lab Type	Regular Lab Time	Other Lab Type	Other Lab Time	Total Contact Hrs
Contact Hrs/Week	~~1hrs~~ 2hrs	N/A	0hrs	Practicum	6hrs	~~7hrs~~ 8hrs
Contact Mins(Hr)/Semester	~~750mins~~ 1500mins		0mins		4500mins	~~105hrs~~ 120hrs
				Lecture Credit Hrs	Lab Credit Hrs	Total Credit Hrs
Semester Credit Hrs				~~1hrs~~ 2hrs	2hrs	~~3hrs~~ 4hrs

Revised Course Description

This course provides continued instruction in exercises and rehabilitation techniques commonly utilized by physical therapist assistants. Topics includes rehabilitation of the neurological patient; rehabilitation of the pediatric patient; cardiac rehabilitation and chest physical therapy techniques; prosthetic and orthotic training; and the assessment of arousal, attention, and cognition. Course content will be presented through lectures, discussions, audio-visual materials, case studies, class and/or laboratory projects, small group study activities, interactive labs, library assignments, field trips, guest speakers, and tests. This course is web-enhanced utilizing the Blackboard learning platform.

Revised Learning Outcomes	Deleted Learning Outcomes	Added Learning Outcomes
~~Discuss~~ Describe behavioral, ~~and~~ cognitive ~~problems~~ and psychosocial issues ~~frequently~~ observed in the patient with ~~traumatic brain~~ neurological ~~injury~~ conditions.	Recognize the eight levels in the Ranchos Los Amigos Cognitive Functioning Scale.	Characterize levels of cognition and consciousness using common assessment tools.
Explain the impact of behavioral, ~~and~~ cognitive and psychosocial ~~changes~~ impairments on clinical care and patient function.	Explain the Glascow Coma Scale	Assess functional levels of patients with neurological conditions.
Develop ~~and demonstrate~~ an appropriate neurorehabilitation ~~exercises~~ program after reading a physical therapy evaluation and plan of care.	Assess the role of physical therapy in head injury rehabilitation.	Characterize the role of medical diagnostic tools in physical therapy interventions.
Effectively collect data to quantify ~~the~~ a patient's response to rehabilitation interventions.	Define terms associated with the pathology and management of CVA.	Explain emergency response to potential life-threatening situations for persons with neurological or neuromuscular disorders.
~~Determine~~ Identify ~~the clinical~~ signs and symptoms of potential serious medical complication of SCI including orthostatic	Relate the etiology and physiology of a stroke	Apply concepts of motor control and motor learning to developing neurotherapeutic interventions.

hypotension and autonomic dysreflexia.		
Differentiate the ~~functional significance of the~~ various levels of SCI ~~including reference to muscle strength~~ by functional activity, body structure and body function.	Recognize assessment techniques commonly associated with a stroke	Recommend appropriate rehabilitation progression based on data collected from a patient's response to treatment.
~~Point out~~ Identify various accommodations and architectural barriers for ~~the~~ wheelchair ~~patient~~ users.	Compare the rehabilitative techniques for stroke patients including PNF techniques, NDT techniques, Brunstrom, Swiss gymnastic ball, and road techniques.	Relate various neurotherapeutic techniques to motor learning across the developmental sequence.
~~Determine~~ Summarize the goals of Cardiac Rehabilitation program.	Apply the above listed rehabilitation techniques in the lab.	Demonstrate various neurotherapeutic techniques appropriate for patients across the developmental sequence.
~~Classify~~ Describe ~~phase~~ the three phases of a typical Cardiac Rehabilitation program. ~~including goals, "target rate," formula for obtaining this figure and rate pressure product, reconditioning exercise program, purpose for warm-up phase, and cool-down phase.~~	Define paraplegic, quadraplegic, paraparetic, and quadraparetic.	Select appropriate safeguards for positioning and handling of pediatric patients.
Explain the "Training Effect" and the desired physiologic responses to Cardiac Rehabilitation.	Articulate the etiology of spinal cord injury (SCI).	Explain the therapeutic management of genetic and/or acquired neurological pediatric conditions including cerebral palsy, myelomeningocele, Trisomy 21, and muscular dystrophy.
~~Perform techniques of cardiac rehabilitation~~ Assess patient's response to conditioning exercise including ~~review of~~ monitoring vital signs ~~monitoring~~.	Characterize the precautions to take with spinal cord patients regarding skincare, prevention of contractures, bladder care, respiratory care, and edema.	Select appropriate adaptive equipment for pediatric patients including standers, walkers, gait trainers, and wheelchairs.
Describe the role, characteristics, and goals of Chest ~~physiotherapy~~ (~~chest~~ PT).	Define orthostatic hypotension and determine how it relates to SCI.	Relate the indications, precautions, and contraindications for persons with spinal cord injury to the plan of care, including primary and secondary impairments.
~~Compare~~ Identify indications, precautions and contraindications for chest PT.	Interpret the purpose of each exercise and how its related to progressing patient towards maximum level of independence regarding strength, mobility, and ADL activities.	Demonstrate various therapeutic interventions appropriate for patients with SCI including transfers and functional mobility.
	Examine significant factors that should be considered when assessing and treating individuals with head injury.	Select appropriate rehabilitation strategies specific to location and degree of LMN lesion.
	Assess the role of physical therapy in head injury rehabilitation.	Correlate clinical presentation with the location and degree of a LMN lesion.

	Demonstrate proper techniques for balance and coordination training.	Demonstrate proper performance of neurotherapeutic interventions for LMN lesions in the upper and lower extremity.
	Demonstrate proper treatment techniques of neurologic conditions.	Develop a treatment plan of neurotherapeutic interventions for patients with various LMN lesions and disorders including; Myasthenia Gravis, Post-Polio Syndrome, and Guillain-Barre, Carpal Tunnel Syndrome, Thoracic Outlet Syndrome, Sciatic, Cauda Equina, Erb's palsy, Diabetic Neuropathy.
	Recognize and monitor responses to positional changes and activities.	Explain proper splinting and positioning strategies for persons with peripheral nerve injury.
	Safely progress the patient interventions through the plan of care.	Describe indications, precautions, and contraindications for management of persons with LMN lesions and disorders.
	Discuss the neurodevelopmental sequence.	Explain the etiology and pathophysiology of common UMN lesions and disorders.
	Demonstrate proper treatment techniques of pediatric conditions.	Perform assessment techniques commonly associated with UMN lesions and disorders.
	Discuss proper treatment techniques for CP patients.	Compare various rehabilitation approaches appropriate for persons with UMN lesions and disorders including PNF techniques, NDT techniques, Brunnstrom, Swiss ball, and Rood technique.
	Discuss proper treatment techniques used on patients with muscular dystrophy.	Demonstrate proper performance of neurotherapeutic interventions for patients with various UMN lesions and disorders.
	Demonstrate proper developmental and neuromotor techniques used in treating pediatric patients.	Develop a treatment plan of neurotherapeutic interventions for patients with various UMN lesions and disorders including; ABI, CVA, Parkinson's Disease, Dementia, Multiple Sclerosis, Amyotrophic Lateral Sclerosis, and Huntington's Disease.
	Instruct family members in correctly handling children with neurological disorders.	Recognize and monitor potential atypical patient responses to therapeutic interventions and positional changes.
	Effectively collect data to quantify the patient's response to interventions.	Describe indications, precautions, and contraindications for management of persons with UMN lesions and disorders.

	Safely progress the patient interventions through the plan of care.	Demonstrate therapeutic exercises appropriate for patients with limb amputations including above the knee (AK) and below the knee (BK).
	Review anatomy and function of the heart.	Analyze common gait deviations seen in patients with lower limb amputations.
	Point out the four valves of the heart and the coronary arteries.	Determine strategies and/or interventions to address common gait deviations in patients with lower limb amputations.
	Explain a cardiac rehabilitation program.	Describe indications, precautions, and contraindications for persons with limb amputation.
	Differentiate between aerobic and anaerobic metabolism.	Explain the therapeutic management of potential complications related to the pre- and post-prosthetic fitting.
	Discuss short term effects of exercise including energy consumption, heart rate, cardiac output, stroke volume, and pulmonary ventilation.	Demonstrate therapeutic management techniques for hygiene and care of the residual limb including limb wrapping.
	Discuss long term effects of exercise including energy consumption, heart rate, cardiac output, stroke volume, blood pressure, and capacity/efficiency.	Relate common medical and surgical conditions to common pharmacologic interventions.
	Classify phase one of cardiac rehabilitation program.	Recognize potential effects of pharmacologic management on the plan of care for various neurologic conditions.
	Classify phase two of cardiac rehabilitation program including goals, exercise testing, and purpose of stress test.	Determine appropriate exercise parameters for patients in each phase of Cardiac Rehabilitation, including target heart rate.
	Recognize benefits of a conditioning program.	Demonstrate various conditioning exercises appropriate for patients in each phase of Cardiac Rehabilitation.
	Effectively collect data to quantify the patient's response to interventions.	Recognize abnormal physiologic response to conditioning exercise.
	Safely progress the patient interventions through the plan of care.	Determine appropriate modifications of conditioning interventions based on patient's response, including when an intervention should be stopped or not performed.
	Review respiratory anatomy including skeletal and muscle components.	Identify indications, precautions, and contraindications for cardiac rehabilitation

	Review respiratory physiology.	Describe common therapeutic considerations following medical and surgical management for patients with cardiac pathology including sternal precautions
	Classify methods of chest PT.	Describe the purpose, mechanism, and side effects of common pharmacologic agents used in management of cardiac conditions and their impact on the plan of care.
	Discuss importance and goals of breathing exercises.	Compare and contrast various strategies of Chest PT including percussion, vibration, postural drainage, breathing techniques, and coughing.
	Characterize the positions for diaphragmatic breathing exercises.	Demonstrate various strategies of Chest PT including percussion, vibration, postural drainage, airway clearance techniques, breathing techniques, and cough enhancement.
	Perform breathing exercises in the laboratory.	Recognize and monitor physiologic response to Chest PT including response to positional changes and therapeutic activities.
	Instruct a fellow classmate in deep breathing exercises.	Assess pulmonary function including chest wall movement, breathing rate, breathing pattern, breath sounds, ventilation, and skin color.
	Observe and monitor thoracoabdominal movements and breathing patterns with activity.	Assess pulmonary function using various devices including stethoscope, pulse oximeter, and spirometer.
	Relate the function of coughing.	Determine appropriate modifications to Chest PT based on patient's response, including when an intervention should be stopped or not performed.
	Discuss ways of teaching a patient to cough.	Explain the purpose of suctioning in Chest PT and commonly used suctioning devices.
	Determine contraindications for vigorous coughing.	Recognize abnormal pulmonary function including impairments of chest wall expansion, excursion, and abnormal breathing rate or patterns.
	Describe postural drainage.	Describe the purpose, mechanism, and side effects of common pharmacologic agents used in management of airway and lung diseases and their impact on the plan of care.

	Relate ideal positions to drain various segments of the lungs and state length of time patient should remain in the drainage position for optimum results.	Instruct a caregiver or family member in various therapeutic management techniques.
	Explain the purpose of percussion and vibration.	Construct interview questions that facilitate data collection for persons with neurological conditions, cardiac and respiratory conditions, and limb deficiency disorders
	Perform percussion and vibration techniques in the laboratory.	Compose accurate documentation that reflects the therapeutic management performed.
	Explain the importance of sputum assessment.	Determine the appropriate communication with a supervising physical therapist that demonstrates effective ongoing collaboration.
	Instruct a fellow student in proper coughing techniques in the laboratory.	Develop effective communication strategies for all stakeholders involved in the therapeutic management of patients.
	Auscultate breath sounds with a stethoscope.	
	Perform a complete postural drainage treatment in the laboratory including auscultating breath sounds, proper positioning to drain indicated lung area, proper percussion technique, proper vibration technique, and proper coughing technique.	
	Demonstrate suctioning technique.	
	Instruct family member in proper postural drainage positions and chest physiotherapy.	
	Effectively collect data to quantify the patient's response to interventions.	
	Safely progress the patient interventions through the plan of care.	
	Discuss the purpose of prosthetics.	
	Characterize prosthetic devices and their components.	
	Define "Prosthetic checkout."	
	Examine procedures for fitting prosthetics.	
	Define orthotics	
	Explain the purpose of bracing.	
	Compare types of braces.	
	Examine the principles of and reasons for bracing.	
	Classify the Milwaukee brace and other back braces.	
	Explain the purpose of each.	

	Recognize various components of lower extremity bracing.	
	Effectively collect data to quantify the patient's response to interventions.	
	Safely progress the patient interventions through the plan of care.	

A11- PHTA 2170: Kinesiology II

Revised Couse Description

~~This course provides continued instruction in the study of human movement. Topics include posture and equilibrium; gait, locomotion, and balance; advanced gait training techniques; and the assessment of muscle performance.~~ *Continued study of the phenomenon of human motion as initiated in PHTA 1130, Functional Anatomy and Kinesiology I. Topics include: review of muscle attachments actions and innervations; specific manual muscle testing techniques; posture and equilibrium; normal and abnormal gait; and advanced gait training skills and techniques.*

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
Describe manual muscle testing.	Explain the definition of each muscle grade.	Assess proper grade of muscle strength for a given manual muscle test performed on a patient simulator.
Perform ~~a gross and~~ specific manual muscle tests to assess muscle function for the UE, LE and trunk.	Recognize postural abnormalities by checking body balance, length measurements, alignment, and muscle tightness.	Identify different special tests and the reason for performing.
~~Relate~~ Identify substitutions in manual muscle testing on a patient simulator.		Assess body alignments and body posture of a partner in sitting and suggest corrective measures.
Demonstrate proper technique on a patient simulator for application of special tests of muscle function.		Describe postural abnormalities.
~~Draw~~ Identify a normal line of gravity on a skeleton or diagram.		Measure causative factors of postural abnormalities using appropriate data collection tools for balance, ROM, or muscle function.
~~State~~ Recall the components of the gait cycle.		Instruct a caregiver or family member in various therapeutic management techniques.
Identify various musculoskeletal gait deviations and the possible causes of each.		Construct interview questions that facilitate data collection for persons with musculoskeletal conditions.
		Compose accurate documentation that reflects the therapeutic management performed.
		Determine the appropriate communication with a supervising physical therapist that demonstrates effective ongoing collaboration.
		Develop effective communication strategies for all stakeholders involved in the therapeutic management of patients.

		Demonstrate communication of any changes in patient/client status to the Physical Therapist in a patient simulated case scenario.
		Identifies the appropriate intervention based on the POC for postural and gait abnormalities.
		Demonstrates techniques of therapeutic exercise outlined in the physical therapist plan of care.
		Interpret data collection to quantify the patient's response to interventions for postural and gait abnormalities.
		Discuss when an intervention should not be performed due to clinical indications or when the direction to perform the intervention is beyond that which is appropriate for the physical therapist assistant.
		Determine when an intervention should not be performed due to clinical indications or when the direction to perform the intervention is beyond that which is appropriate for the physical therapist assistant.
		Integrate evidence-based resources to support clinical reasoning.

A12- PHTA 2180: Clinical Education II

Revised Course Description

This course provides continued opportunity for clinical education under the supervision of a licensed physical therapist or licensed physical therapist assistant in various health care facilities. Topics include therapeutic exercise; interventions for neurological conditions; mechanical and electrotherapeutic physical agents; gait and posture analysis; advanced gait training techniques; manual muscle testing; interventions for limb deficiency disorders; identification of architectural barriers; interpersonal and communication skills; principles of teaching and learning; documentation; and modification of interventions within the plan of care.

In addition to clinical skills/knowledge included in PHTA 2140 – Clinical Education I, students are expected to demonstrate competency in the skills listed below during Clinical Education II, as well as those required for Clinical Education I. Due to the nature of the clinical education experience, clinical competency skills that are covered in PHTA 2190 and/or 2140 may be addressed in PHTA 2180. Success in the course requires students require no more than 50% assistance with competency skills and no more than 25% assistance with all critical skills (communication, clinical behavior, safety, accountability, and clinical problem solving).

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
Prepare patient and treatment area observing ~~universal~~ standard precautions.	Monitor and record vital signs.	Modify therapeutic exercise as appropriate for patient presentation.
~~Implement~~ Demonstrate skill in ~~measurement of~~ measuring, monitoring and recording standard vital signs.	Observe the presence or absence of muscle mass.	

Promote active involvement of the patient in ~~his/her~~ their care.	Recognize normal and abnormal muscle length.	
~~Apply~~ Demonstrate safe and effective transfer techniques.	Recognize changes in muscle tone.	
Demonstrate application~~s~~ of techniques used for aerobic conditioning, balance and coordination.	Perform gait analysis.	
~~Relate~~ Recognize the safety, status, and progression of patients while engaged in wheelchair management and locomotion training.	Assess body alignments and body posture.	
Recognize safety and barriers in home, community and work environment~~s~~.	Provide patient-related instruction to patients, family members, and caregivers to achieve patient outcomes based on the plan of care established by the physical therapist.	
~~Relate~~ Describe effects, indications, and contraindications of electrotherapeutic agents.	Demonstrate effective instruction to the patient and others to achieve the goals and outcomes as described in the plan of care.	
~~Relate~~ Describe effects, indications, and contraindications of traction devices.	Apply the SOAP format for note writing.	
Perform proper goniometric measurements in head/neck, trunk, upper extremity, pelvis, and lower extremity. ~~areas~~.	Support and participate in efforts that promote physical therapy.	
Observe gait and perform gait analysis.	Educate others about the role of the physical therapist assistant.	
~~Suggest~~ Recognize possible causative factors for gait deviations.		
~~Suggest~~ Identify possible causative factors for postural abnormalities.		
~~Perform~~ Participate in posture awareness training.		
~~Share~~ Participate in educating patients, family members, and caregivers on outcomes based on the plan of care as directed by the supervising physical therapist.		
~~Accept~~ Respect individual and cultural differences and respond appropriately in all aspects of physical therapy services.		
~~Provide~~ Participate in effective instruction to the patient and others to achieve the goals and outcomes as described in the plan of care.		
Determine the essential components of ~~patient documentation~~ SOAP note to properly document treatment session.		

Develop ~~written note writing~~ documentation skills using medical terminology and proper format.		
Complete documentation that follows professional guidelines as appropriate for the health care system and physical therapy setting. ~~policies~~.		
Comply with facility policies, ~~and~~ procedures, and payer regulations consistent with ~~the health care delivery system and the practice setting~~ reimbursement needs.		
Demonstrate ~~skill in~~ proficiency scheduling patients for ~~treatment~~ appointments.		
Recognize changes in the ~~direction and magnitude of~~ patient's state of arousal, mentation and cognition.		
Implement appropriate tasks or responsibilities ~~assigned~~ as outlined in the plan of care established by the physical therapist.		
Adjust interventions within the plan of care ~~established by the physical therapist~~ in response to patient clinical indications and report this to the supervising physical therapist.		
~~Evaluate~~ Recognize when intervention should not be provided due to changes in the patient's status and report this to the supervising physical therapist.		
Report any changes in the patient's medical status to the supervising physical therapist.		
Recognize when ~~the direction to perform~~ an intervention is beyond that which is appropriate for a physical therapist assistant and initiate clarification with the physical therapist.		
Display cultural competency and the best practices for providing culturally competent and ~~culturally~~ proficient care.		

A13- PHTA 2190: Clinical Education III

Revised Course Description

This course provides continued opportunity for clinical education under the supervision of a licensed physical therapist or licensed physical therapist assistant in various health care facilities. Topics include therapeutic exercise; interventions for neurological conditions; mechanical and electrotherapeutic physical agents; gait and posture analysis; advanced gait training techniques; manual muscle testing; interventions for limb deficiency disorders;

identification of architectural barriers; interpersonal and communication skills; principles of teaching and learning; documentation; and modification of interventions within the plan of care.

In addition to clinical skills/knowledge included in PHTA 2140 and PHTA 2180 – Clinical Education I and II. Students are expected to demonstrate competency in the skills listed below during Clinical Education III, as well as those required for Clinical Education I and II. Due to the nature of the clinical education experience, clinical competency skills that are covered in PHTA 2180 and/or 2140 may be addressed in PHTA 2190. Success in the course requires students require no more than 25% assistance with competency skills and are entry level with all critical skills (communication, clinical behavior, safety, accountability, and clinical problem solving).

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
Prepare patient and treatment area observing ~~universal~~ standard precautions.	Monitor and record vital signs.	Modify physical therapy services to respond appropriately to individual and cultural differences.
Demonstrate proficiency in measuring, monitoring and recording ~~skill in measurement of~~ standard vital signs.	Assess the presence or absence of muscle mass.	
~~Implement~~ Demonstrate competency in applications ~~of~~ techniques used in passive ROM, active-assistive ROM, active ROM, stretching and strengthening exercises.	Recognize normal and abnormal muscle length.	
~~Implement~~ Demonstrate applications of techniques used for aerobic conditioning, balance and coordination. ~~training~~.	Recognize changes in muscle tone.	
~~Compare and Contrast~~ Recognize effects, indications, and contraindications of therapeutic exercises.	Recognize fine motor and gross motor milestones.	
Implement proper rehabilitation interventions for patients with ~~a CVA, spinal cord injury and limb deficiencies~~ neurological and musculoskeletal conditions utilizing appropriate prosthetic and orthotic devices if applicable.	Recognize safety factors while utilizing prosthetics and orthotics devices.	
Implement proper ~~NDT and PNF techniques~~ neurotherapeutic interventions.	Perform gait analysis.	
~~Express the~~ Demonstrate skill in recognizing the safety, status, and progression of patients while engaged in wheelchair management and mobility.	Assess body alignments and body posture.	
~~Point out~~ Recommend modifications to architectural barriers and modifications to minimize/alleviate barriers.	Participate in educating patients and caregivers as directed by the supervising physical therapist.	
~~Apply~~ Demonstrate proper application of electrotherapeutic agents.	Demonstrate effective instruction to the patient and others to achieve the goals and outcomes as described in the plan of care.	

~~Apply~~ Demonstrate proper application of traction devices.	Respect individual and cultural differences and respond appropriately in all aspects of physical therapy services.	
~~Apply~~ Demonstrate proper application of compression devices.	Apply the SOAP format for note writing.	
~~Use~~ Perform proper measurement of muscle strength by manual muscle testing.	Promote and participate in efforts that promote physical therapy.	
~~Establish~~ Identify the presence or absence of muscle mass.	Under the direction and supervision of the physical therapist, instructs other members of the health care providers or practitioners.	
Perform proper goniometric measurements in head/neck, trunk, upper extremity, pelvis, and lower extremity. ~~areas~~		
Assess gait and perform gait analysis.		
~~Compare and Contrast~~ Recognize components of a normal gait and deviations from a normal gait.		
~~Formulate~~ Assess possible causative factors for gait deviations.		
~~Evaluate~~ Assess the safety, status, and progression of patients while engaged in gait, locomotion, balance and mobility training.		
~~Recognize~~ Assess alignment of trunk and extremities at rest and during activities and identifies postural abnormalities.		
~~Suggest~~ Assess possible causative factors for postural abnormalities.		
~~Develop patient-related instruction for~~ Provide education to patients, family members, and caregivers ~~to achieve patient outcomes based~~ on the plan of care as ~~established~~ directed by the supervising physical therapist.		
~~Consider~~ Adapt psychosocial principles in self-understanding and in developing communication with patients, families, the public, and other health team members.		
~~Model~~ Document the essential components of ~~patient documentation~~ SOAP note to properly document treatment session.		
Develop ~~written note writing~~ documentation skills using medical terminology and proper format.		

Compose documentation that follows professional guidelines as appropriate for the health care system policies and physical therapy setting policies.		
~~Justify~~ Relate aspects of organizational planning and operation of the physical therapy service.		
~~Schedule~~ Demonstrate proficiency in scheduling patients for ~~treatment~~ appointments.		
Recognize changes in the ~~direction and magnitude of~~ patient's state of arousal, mentation and cognition.		
Perform appropriate tasks or responsibilities as outlined in the plan of care ~~assigned~~ established by the physical therapist.		
Adjust interventions within the plan of care ~~established by the physical therapist~~ in response to patient clinical indications and reports this to the supervising physical therapist.		
Report any changes in the patient's medical status to the supervising physical therapist.		
Recognize when ~~the direction to perform~~ an intervention is beyond that which is appropriate for a physical therapist assistant and initiates clarification with the physical therapist.		
Offer cultural competency and the best practices for providing culturally competent and ~~culturally~~ proficient care.		
~~Appreciate~~ Identify, respect, and act with consideration for the patient's differences, values, preferences, and expressed needs in all physical therapy activities.		
Respond appropriately in an emergency situation if applicable.		

A14- PHTA 2200: Physical Therapist Assistant Seminar

Revised Learning Outcomes	**Deleted Learning Outcomes**	**Added Learning Outcomes**
Justify a ~~case report,~~ treatment and/or procedure experienced in Clinical Education III.	Apply proper résumé writing methods.	Describe the differences between a résumé and curriculum vita.
Prepare a written and oral presentation ~~report~~ on the ~~case report,~~ treatment and/or procedure in Clinical Education III.	Identify career development and lifelong learning opportunities.	Devise a 5-year career plan that develops and promotes learning opportunities, including the role of the physical therapist assistant in

		the clinical education of physical therapist assistant students.
Create a résumé using appropriate style methodology.	Recognize the role of the physical therapist assistant in the clinical education of physical therapist assistant students.	