



# PTHA 2535 – Rehabilitation Techniques

Course Syllabus: Spring 2020

*“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”*

**Instructor: Nancy Wilson, PT, DPT**

**Office:** UHS 105

**Phone:** 903-434-8323

**Email:** nwilson@ntcc.edu

Office	Monday	Tuesday	Wednesday	Thursday	Friday	Online
Hours	1:30-5:00	9:00-11:00	1:30-5:00	9:00-11:00	By appt.	N/A

***This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.***

*Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.*

**Course Description:** Comprehensive rehabilitation of selected diseases and disorders.

**Prerequisite(s):** Successful completion of PTHA courses up this point in the curriculum.

### Student Learning Outcomes:

#### GENERAL COURSE LEARNING OUTCOMES:

The student will be able to describe physical therapy management of patients with selected diseases and disorders; demonstrate rehabilitation techniques for diseases and disorders; and demonstrate communication skills.

#### GENERAL OBJECTIVES:

1. Attend all classes and arrive on time
2. Discuss the potential affects on co-workers and patients on in-attendance and tardiness in the clinical setting
3. Demonstrate acceptance and application of faculty feedback on written, oral and practical exams
4. Discuss ways to demonstrate empathy in dealing with a patient in pain or under stress
5. Seek opportunities to promote access to or awareness of Physical Therapy
6. Display empathy in dealing with a patient in pain or under stress during role play.
7. Demonstrate professional behaviors when representing the PT profession
8. Seek opportunities to promote access to or awareness of Physical Therapy
9. Meet discharge planning needs and follow-up care as outlined by the PT in the POC within the legal and ethical abilities of the PTA
10. Recognize when the directions to perform an intervention is beyond the scope of a PTA; and, report and discuss with the Physical Therapist
11. Adjust interventions within the POC established by the PT in response to the patient’s signs and symptoms and report to supervising PT
12. Demonstrate appropriate verbal and non-verbal communication with the patient, caregivers, and physical therapist in an effective, appropriate, capable manner.
13. Identify and demonstrate communication techniques to use when speaking to people with language barriers

14. Recognize cultural, religious, and individual differences of the patient/family members that should be considered when providing PT intervention
15. Respond appropriately to cultural, religious, and individual differences of the patient/family members during role play

#### SPECIFIC OBJECTIVES:

On a written examination with 75% proficiency, the student will be able to:

#### **The Aging Patient, Geriatric Rehab (Coordination/Balance), Gait Analysis:**

1. Identify the abnormal changes associated with aging in the various body systems (e.g. Cardiovascular, Musculoskeletal, Neurological, etc.)
2. Discuss the physical changes of aging and their impacts on older persons' quality of life
3. Understand the diagnosis and management of geriatric syndromes including: dementia; malnutrition; falls; pain; dizziness, and polypharmacy
4. Describe the anatomical and physiological changes in the aging adult
5. Identify the effects of long-term bed rest
6. Differentiate the effect of normal vs. abnormal aging on functional competence
7. Explain the effects of medications on functional and exercise performance
8. Recognize the functional consequences of hearing and vision loss for the aging adult
9. Recognize the importance of sense of personal identity throughout the aging process
10. Define and contrast balance and coordination
11. Discuss the mechanoreceptor system and define four mechanoreceptors
12. List static and dynamic balance and coordination tests and activities
13. Define proprioception and kinesthetic awareness
14. Discuss several factors that contribute to balance dysfunction
15. Identify functional closed kinetic chain proprioceptive exercises
16. Identify the relationship between balance disorders and fall risk
17. Specify the central and peripheral components of postural control mechanisms
18. Compare and contrast the roles of the visual, vestibular, and somatosensory systems in postural control
19. Identify and differentiate between pathologies that can result in impaired balance
20. Relate common age-related changes in postural control mechanisms to fall risk in the elderly
21. Identify and describe typical examination findings used in the management of patients with balance disorders or who are at increased risk for falls
22. Describe the components of the normal gait cycle
23. Describe how pathological processes can affect the normal gait cycle
24. Identify and discuss the importance of the components of the gait examination
25. Describe common interventions for individuals with gait dysfunction
26. Define the terms used to describe normal gait
27. Compare the variables that are assessed in each of the following types of gait analysis: kinematics qualitative analysis, kinematics quantitative analysis, and kinetic analysis
28. Identify the joint positions and muscle actions of the lower extremity and trunk during normal gait
29. Describe and give examples of the common deviations found in gait
30. Using videotaped gait patterns, analyze normal and abnormal gait

### **Cardiac Rehab, Cardiopulmonary/COPD:**

1. List the components of a cardiac rehab program
2. Recognize the more common medications used in the treatment of cardiac problems
3. Describe appropriate activities for a patient in cardiac rehab in the various phases of recovery and conditioning
4. List the components of pulmonary rehab program and home exercise program
5. Be able to recognize various pathological breath sounds
6. Instruct a patient in positions of relaxation for regaining breath control in patients experiencing shortness of breath
7. Recognize the importance of breath control during ambulation or exercise routines; and, communicate any change in patient status to supervising PT
8. Recognize signs of respiratory concerns i.e. cyanosis, shortness of breath, labored breathing, etc.
9. Describe and instruct patient in cough technique
10. Define congestive heart failure and identify implications for rehabilitation interventions
11. Understand the etiology and pathology of heart failure
12. Describe classification systems for heart failure
13. Identify typical examination procedures used to diagnose heart failure
14. Provide effective rehabilitation interventions for patients with heart failure
15. Classify types of respiratory failure
16. Identify common diseases and diagnoses associated with respiratory failure
17. Identify potential complications of respiratory failure and discuss their impact on rehabilitation and functional capacity
18. Describe and apply rehabilitation interventions for individuals with respiratory failure and demonstrate understanding of their proposed mechanisms of action
19. Demonstrate the ability to document physical therapy interventions as they relate to cardiac and pulmonary patients
20. Identify the vital signs
21. Discuss the importance and physiological implications of each vital sign
22. Describe and perform appropriate procedures to measure the vital signs, including pulse, respiratory rate, blood pressure, pain level, and oxygen saturation
23. Identify normal ranges for the vital signs
24. Know when to monitor vital signs during rehabilitation
25. Identify/describe the normal components of an EKG strip and what physiological response corresponds with each component
26. Identify/recognize common cardiac arrhythmias
27. Discuss potential complications and rehabilitation concerns/precautions related to abnormal EKG findings.
28. Describe VO<sub>2</sub> max as it relates to exercise
29. List adaptive physiological changes related to aerobic exercise
30. Describe the age adjusted maximum heart rate
31. Discuss several guidelines for the development of aerobic fitness related to frequency, intensity, duration, and mode of activity
32. Outline methods of aerobic training
33. Identify orthopedic considerations during aerobic exercise
34. Compare endurance training alone with the effect of a combined program of aerobic training and strength training
35. Identify normal lab value ranges
36. Discuss potential affects that abnormal lab values might have on rehabilitation interventions and outcomes

### **Arthritis, Joint Replacement Interventions, Surgical Interventions:**

1. Describe the pathological processes of Rheumatoid Arthritis (RA) and Osteoarthritis (OA)
2. Differentiate the clinical signs between RA and OA

3. Identify three major stages of RA and for each stage, outline appropriate physical therapy treatments for a RA patient based on an established POC
4. Outline appropriate physical therapy treatment for an OA patient based on an established POC
5. Outline the pathological sequence of RA
6. Describe various principles of joint protection to be taught to a patient with RA and OA
7. In a given scenario, demonstrate and describe various principles of energy conservation to be taught to a patient with RA and OA
8. Describe the medical and pharmacological management of the individual with arthritis
9. In a given scenario, demonstrate effective listening skills and empathy to improve patient adherence to PT intervention
10. In a given scenario, demonstrate sensitivity and responsiveness with patients who are not adhering to the treatment plan
11. In a given scenario, communicate any change in patient status to the supervising PT
12. Demonstrate the ability to document physical therapy interventions as they relate to arthritic and osteoporotic patients
13. Understand brief surgical techniques/interventions for the arthritic joint
14. Understand the general healing principles after arthritic surgical interventions
15. Recognize factors which limit or slow healing after joint reconstructions
16. In a given scenario, be able to describe basic treatment techniques for the post-op total knee replacement patient
17. In a given scenario, be able to describe basic treatment techniques for the post-op total hip replacement patient
18. In a given scenario, be able to describe basic treatment techniques for the post-op total shoulder replacement patient

### **Scoliosis, Osteoporosis, Geriatric Posture:**

1. Be able to recognize scoliosis of the spine by utilizing the Cobb Angle guidelines and observation
2. Identify and discuss the different causes and types of scoliosis
3. Identify the symptoms of the each type of scoliosis
4. Identify various movements contraindicated with scoliosis
5. Instruct patient in appropriate stretching and exercises for the specific type of scoliosis
6. Recognize the surgical components in the treatment of scoliosis
7. Recognize the various physiological effects resulting from surgical and bracing interventions
8. Demonstrate the ability to document physical therapy interventions as they relate to scoliosis patients
9. Understand the importance of effective communication with patients and families in the management of osteoporosis
10. Identify the patient population at greatest risk of osteoporosis
11. Recognize the factors that increase the risk of osteoporosis
12. Discuss the etiology and clinical consequences of osteoporosis, low bone mass and related fractures
13. Describe the risks that osteoporosis patients face in terms of fractures and their Sequelae
14. Based on the POC, develop a treatment plan for the patient with osteoporosis in the context of the patient's life and environment
15. Understand the pathophysiology and risks of untreated osteoporosis
16. Understand the importance of effective communication with patients and families in the management of osteoporosis
17. Describe ideal posture in standing and sitting in anterior/posterior views
18. Describe ideal posture in standing and sitting in sagittal view
19. Understand pathophysiology behind geriatric postural faults
20. Be able to identify proper treatment techniques for abnormal posture
21. Identify muscular weaknesses leading to abnormal posture
22. Understand precautions when prescribing postural exercise to the geriatric patient

### **Spinal Disorders, Surgical Interventions, TOS:**

1. Understand phases of spinal degeneration
2. Be able to identify sensory, motor, and reflex nerve root innervations from C4- S2
3. Know the differences between annulus fibrosis and nucleus pulposus
4. Identify cervical spinal stenosis syndromes
5. Identify postures which decrease stenotic symptoms and those which aggravate
6. Be able to classify stages of spondylolisthesis
7. Understand structural faults with spondylolysis and spondylolisthesis
8. Understand McKenzie classification system for spinal disorders
9. Know RED FLAGS of serious spinal pathology
10. Know examination findings indicative of possible spinal pathology
11. Know special test to rule in/rule out spinal dysfunction
12. Know special test to rule in/rule out spinal radiculopathy
13. Understand indications for spinal joint mobilization
14. Identify precautions and contraindications to mobilization and manipulation
15. Describe basic mechanics of the three spinal regions
16. Identify various types of sprains and strains of the spinal regions
17. Understand physical therapy management techniques to treat spondylolysis and spondylolisthesis
18. Identify common spinal fractures
19. Have basic understanding of spinal fusion techniques and reasons for spinal fixation
20. Know the difference between spinal laminectomy and laminotomy
21. Understand precautions when treating a patient post spinal fusion

### **RSD/CRPS, Post-Polio Syndrome:**

1. Distinguish acute, sub-acute and chronic pain
2. Explain the physiology of pain and the peripheral mechanisms that contribute to chronic pain (inflammatory response, sensitization of nociceptors, peripheral nerve injury, etc.)
3. Classify pain based on signs, symptoms, function and subjective data
4. Describe common clinical presentations of the chronic pain
5. In a given case scenario, utilize various tools for pain measurement (e.g. Visual Analogue Scale, body diagrams, pain questionnaires, etc.)
6. Discuss advantages and disadvantage of pain measurement tools
7. Identify the common classes of medications used in the treatment/management of chronic pain
8. Based on the POC, implement a physical therapy intervention for the patient diagnosed with chronic pain
9. Understand the psychosocial components of chronic pain; it's potential impact on physical therapy intervention
10. Demonstrate the ability to document physical therapy interventions as they relate to chronic pain patients
11. Discuss and outline the rehab management of patients with various other long-term pathologies including: Post-polio, RSD
12. Given a case scenario, describe appropriate rehab activities for patients with various long-term pathologies and instruct patient in appropriate rehab exercises
13. Recognize the more common medications used in the treatment of various long-term pathologies
14. Demonstrate the ability to document physical therapy interventions as they relate to patients with long-term pathologies

### **Vestibular Rehab & Lab:**

1. Identify components contributing to impaired balance in the geriatric patient
2. Describe and implement balance training in static and dynamic states
3. Identify and differentiate vestibular symptoms from other manifestations of vertigo, dizziness, and disequilibrium

4. Explain the methods of identifying and treating vestibular dysfunction and perform the various techniques
5. Recognize the more common medications used in the treatment of vestibular conditions
6. Gain a sense of what it feels like to have vestibular dysfunction
7. Describe various commonly used assessments of balance and the vestibular system
8. Construct an appropriate treatment strategy for patients with balance of vestibular system deficits
9. Demonstrate the ability to document PT interventions as they relate to patients with balance and vestibular disorders
10. Explain and administer various balance measurement/grading tools (Berg, Tinetti, Get up and go, etc.)

### **PNF Patterns & Lab:**

1. Define PNF and list the component motions of the extremity unilateral and bilateral patterns
2. Understand and perform the basic PNF diagonals for upper and lower extremities (demonstrate using manual contacts, voice tone/verbal cues, timing for emphasis and appropriate PNF techniques for various conditions presented)
3. Given a patient case scenario and plan of care, select and perform the appropriate PNF treatment techniques
4. Demonstrate the ability to document physical therapy interventions when utilizing PNF patterns

### **Vascular & Lymphatic Disorders:**

1. Identify types of arterial, venous and lymph disorders and their clinical manifestations
2. Identify pharmacological management and/or exercise treatments of the various vascular disorders
3. Understand the anatomy and the physiology of the lymphatic system
4. Discuss the risk factors for pathologies associated with the consequences of lymphedema
5. Be familiar with common examination techniques for a patient with lymphedema
6. Identify the components of complete decongestive therapy
7. Describe treatment modifications that may need to be considered for patients with arterial/venous/& lymph disorders.

### **Amputations, Prosthetics and Orthotics:**

1. List the most frequent reasons for TT and TF amputation and identify levels and structures involved with TT and TF amputation.
2. Describe surgical procedures utilized in amputation (e.g. myodesis, beveling, etc.)
3. Describe phantom limb pain/sensation
4. Demonstrate correct and appropriate residual limb wrapping techniques
5. Describe post-operative problems common to patient with amputation e.g. delayed healing, ulceration, and gangrene
6. (Included in lab) Based on the POC, devise a post-operative strengthening/stretching treatment plan for the patient following amputation and instruct patient in appropriate exercises
7. List the common components of a TT and TF prosthesis and describe the function of the components
8. List the areas of weight-bearing and pressure relief for the TT and TF prosthesis
9. (Included in lab) Instruct the patient in the sequential components of gait training with prosthesis donned
10. (Included in lab) Choose appropriate assistive device for gait training with and without prosthesis donned.
11. Discuss common skin problems for the person wearing a prosthesis or orthotic
12. List the general components of a foot orthosis
13. List the general functions of any orthotic device
14. Describe the general elements in extremity orthotic training
15. Identify the basic types of spinal orthoses
16. Describe potential detrimental effects of orthotic devices

17. Discuss/instruct the patient in the care of assistive, adaptive, orthotic, protective, supportive and prosthetic devices
18. Gain a sense of what it might feel like to live with an amputated limb
19. Demonstrate the ability to document physical therapy interventions as they relate to patients with amputations.
20. (Included in lab) Identify gait deviations of TT/TF amputees and if deviation is related to muscle weakness or the need for prosthetic adjustment.
21. (Included in lab) Identify therapeutic interventions to correct gait deviation if due to muscle weakness.

### **Pregnancy:**

1. Identify anatomical and physiological changes that occur during pregnancy
2. Explain how prenatal and postnatal exercise can be of benefit to the patient
3. Instruct patient in pre and postnatal exercises
4. Based on the POC, identify treatment considerations for the pregnant patient related to condition
5. Discuss risks and benefits of exercise for both mother and baby
6. Describe physiologic adaptations to exercise during pregnancy
7. Review absolute and relative contraindications to exercise during pregnancy
8. Demonstrate the ability to document physical therapy interventions as they relate to pregnant patients
9. Identify the muscle layers and specific muscles of the pelvic floor. List the muscle functions
10. Identify specific pelvic pain conditions and common physical therapy interventions
11. Describe normal bladder function/events of continence
12. Identify the various types of urinary incontinence and behavioral treatment options

### **Environment examination and modification**

1. Gain a sense of the importance of environmental accessibility in optimizing patient function
2. In a given scenario, identify common home, work place, and community environmental barriers that would impact function
3. In a given case scenario, identify and implement strategies to improve patient function through environmental modifications
4. Based on the POC established by the PT, make modifications in treatment appropriate to changes in patient status (progression and/or regression)
5. Demonstrate and instruct patient in basic wheelchair mobility, management and maintenance
6. Demonstrate the ability to document physical therapy interventions as they relate to these types of patients

### **The Geriatric Rehab (Coordination/Balance), Gait Analysis:**

1. Identify the abnormal changes associated with aging
2. Understand the diagnosis and management of geriatric syndromes
3. Describe the anatomical and physiological changes in the aging adult
4. Explain the effects of medications on functional and exercise performance
5. Recognize the functional consequences of hearing and vision loss for the aging adult
6. Define and contrast balance and coordination
7. Describe static and dynamic balance and coordination tests and activities
8. Demonstrate static and dynamic balance and coordination tests and activities
9. Define proprioception and kinesthetic awareness
10. Discuss several factors that contribute to balance dysfunction
11. Identify functional closed kinetic chain proprioceptive exercises
12. Describe the rationale for proprioceptive training for the upper extremity
13. Identify the relationship between balance disorders and fall risk
14. Define terminology used in the physical therapy management of balance disorders
15. Specify the central and peripheral components of postural control mechanisms

16. Compare and contrast the roles of the visual, vestibular, and somatosensory systems in postural control
17. Identify and differentiate between pathologies that can result in impaired balance
18. Relate common age-related changes in postural control mechanisms to fall risk in the elderly
19. Identify and describe typical examination findings used in the management of patients with balance disorders or who are at increased risk for falls
20. Describe the components of the normal gait cycle
21. Describe how pathological processes can affect the normal gait cycle
22. Identify and discuss the importance of the components of the gait examination
23. Describe common interventions for individuals with gait dysfunction

**Evaluation/Grading Policy:**

Exams (6).....	55%
Protocol/Assignments/check-offs.....	5%
Mid-Term Lab Practical.....	5%
Final Lab Practical Video Project.....	10%
Comprehensive Final Exam.....	25%

**GRADING SCALE**

- A = 92-100
- B = 83-91
- C = 75-82
- D = 66-74
- F = 65 and below

Specific objectives are established for each of the PTHA courses. These may be found in the course syllabus provided to the student on Blackboard under the specific course number. The student should refer to the specific objectives frequently throughout the course of study.

The PTA program designates 75% as the minimum passing level of achievement. A student must have a 75% course exam average to be eligible to sit for the final exam. In addition, the student must have a 75% lab component average to be eligible to sit for the final exam. Any student receiving a final course average below 75% will not pass the course and subsequently dismissed from the program. If a student does not meet either the exam average or the lab component average of 75%, he/she will not be eligible to sit for the final exam and will fail the course.

**Required Instructional Materials:**

1. Cameron, MH & Monroe, LG: Physical Rehabilitation For The Physical Therapist Assistant, St. Louise, MO, 2011, Elsevier Saunders.
2. Goodman, CG & O’Shea, RK: Pathology For The Physical Therapist Assistant, St. Louise, MO, 2012, Elsevier Saunders.
3. Martin, S & Kessler, M: Neurologic Interventions For Physical Therapy 2<sup>nd</sup> Edition, St. Louise, MO, 2007, Elsevier Saunders.
4. Shankman, GA & Manske RC: Fundamental Orthopedic Management For The Physical Therapist Assistant, 3<sup>rd</sup> ed, St. Louise, MO, 2011, Elsevier Mosby.

**Optional Instructional Materials:** None

**Minimum Technology Requirements:**

- High speed internet access

### **Required Computer Literacy Skills:**

- Word processing skills
- Email and Remind texting skills

### **Course Structure and Overview:**

This is a lecture and lab course where the student will be able to describe physical therapy management of patients with selected diseases and disorders; demonstrate relevant rehabilitation techniques for diseases and disorders; and demonstrate communication skills.

### **Communications:**

The student is expected to communicate with instructor when possible via text, email or face-to-face by appointment. All texts and emailed questions to the instructor will be responded to within 24 hours, but usually within a few hours when possible.

### **Institutional/Course Policy:**

#### ATTENDANCE AND ABSENTEEISM

#### ***TARDIES AND ABSENCES ARE STRONGLY DISCOURAGED***

The PTA faculty believes that the habits and work patterns established in school will be carried over to the work setting. Therefore, every effort should be made to establish patterns of good attendance and promptness. This applies not only to the technical courses but also the general education and support courses. Student attendance is addressed under student responsibilities in the school catalog. In addition, student attendance and participation is also addressed utilizing the Professionalism Development Rubric. This document provides the student a means to identify and track any area(s) of deficiency regarding professional behaviors; and, to improve in the area(s). For the PTA Program, the following guidelines concerning attendance will be enforced:

1. For every class period missed, one (1) absence is accumulated.
2. A student more than five (5) minutes late or leaving class early with or without instructor permission is considered tardy.
3. Three (3) tardies constitute one (1) absence.
4. After absences (excused or unexcused) in any 4 class periods per semester, the student will be placed on probation. Stipulations of probation will be developed based on the student's history and circumstances surrounding the absences; and conditions for dismissal in the event of a future absence will be included in the probationary contract.
5. Make-up work is required for all absences in order to ensure that the student acquires information and skills presented during his/her absence (see Make-up work section). It is the **student's responsibility** to meet with instructor(s) on the first day back to schedule make-up work and/or lab check-off.
6. Students must notify (voicemail or e-mail) the PTA office in **advance** whenever excessive (>5 minutes) tardiness or absence is unavoidable. **Notification of the student's absence by classmates is not acceptable!**

\*Note: An absence will be excused by provision of a note written and signed by a medical professional; and by uncontrollable or unavoidable extenuating circumstances as documented below. All other absences/tardies will be considered unexcused.

Further explanation of **excused absences** is as follows:

- “A student’s serious illness” shall mean a condition such as pneumonia, surgery, hospital confinement, or valid documented medical reason. A physician’s documentation verifying illness must be provided.
- “Death in the immediate family” shall be interpreted to mean mother, father, mother-in-law, father-in-law, spouse, child, brother, sister, grandparents, or significant other. Documentation must be provided.
- “Statutory government responsibilities” refer to such matters as jury duty or subpoena for court appearance. Documentation must be provided.
- Inclement weather – see policy below.

## **INCLEMENT WEATHER/DESIGNATED HOLIDAYS**

Students scheduled for class during inclement weather conditions in which NTCC designates travel hazardous and closes the campus, will not be expected to attend class that day. However, in the event that NTCC remains open for classes, but the local school district in which the student resides closes and the student deems travel as hazardous, the student will not be expected to attend class that day. All class and lab work missed in this situation must be made up. If NTCC is open and the local school district in which the student resides remains open, the student must attend class that day. If the student does not attend class in the event that NTCC remains open, both the course instructor and program director must be notified in advance as with any other absence. The absence will be unexcused.

## **MAKE-UP WORK**

### **Due to Absence:**

Each student is responsible for all material and techniques presented in class and labs. If a class is missed, the student is responsible for obtaining from a classmate, information/ notes, handouts, lab work, covered during that absence. It is the **student’s responsibility** to schedule a time with the instructor to complete lab check-offs for content missed. Lab check-offs must be made up within one week of the date absent. The student’s grade will be lowered **10 points** on the corresponding lab practical for each lab session and check-off not made up within the allocated timeframe. If the student has not “checked-off”, any missed lab material/techniques; they will **NOT** be allowed to take the corresponding lab practical and a grade of “0” will be assigned. If a test, lab practical, or special assignment is missed due to an **excused** absence, it is the student’s responsibility to consult the instructor the next time the student is on campus about making up a test or turning in an assignment. The student must make-up the missed test or lab practical within one week from the date missed providing **appropriate notification of absence was made prior** to the original test time. Lack of notification prior to exam time will result in a grade of “0” for the missed exam; ***notifying classmates to relay the student’s absence is not acceptable!*** Assignments due on the date of the excused absence must be turned in the next time the student is on campus; otherwise, the student will receive a “0” for the work missed. An **unexcused** absence will result in a “0” on a test, lab practical, or special assignment missed; the student will not have the opportunity to make up the work missed work.

One make-up test and/or lab practical due to excused absence, per class, per semester is allowable without penalty. **It is the student’s responsibility to set up a time with the instructor to make up the test or lab practical missed.**

### **Remediation:**

In the event a student scores less than a 75 on a lab practical exam, the student **may be assigned remediation** for the previously failed practical components (based on specified course lab practical rubric). Failure to complete remediation satisfactorily (demonstration of proficiency) will result in failure of the course.

### **Due to failure of safety criteria on lab practicals:**

On lab practical exams several areas on each exam are considered to be patient safety criteria or “critical elements”; if a student **fails a patient safety element/criteria, he/she will be required to re-do the lab practical.** The re-do (2<sup>nd</sup>) lab practical cannot be taken on the same day as the failed lab practical. It is the **student’s responsibility** to schedule a time with the instructor to re-do the practical and must be scheduled and completed during the instructor’s office hours or other established time within the next week. The highest grade that a student can receive on the “re-do” is 75. If a student fails the safety criteria on the lab practical “re-do”, the student is given a grade of “0” and automatically fails the course. Only one lab re-do per course, per semester, will be permitted for failure of safety criteria.

### **CLASS PREPAREDNESS**

Students are expected to complete all reading assignments, as outlined in the course schedule or assigned by the instructor, prior to class time. It is the responsibility of the student to turn in assignments on time. Assignments are due at the beginning of the class period. Late assignments received by the next class period will result in a maximum grade of 75. If assignment is not turned in by the next class period the student will receive a grade of “0” for that assignment.

Students are expected to participate in and perform a variety of physical therapy procedures on each other in lab and the classroom for educational purposes; after practicing each laboratory skill, the student will be asked to present a return demonstration to the instructor at some point prior to the conclusion of the lab.

### **POLICY ON CIVILITY AND CELL PHONES IN THE CLASSROOM AND LABORATORY**

Use of cell phones is **prohibited** in class/lab. Phones are **NOT** allowed and should be kept out of sight during class time. If the student is observed using the phone (texting, calling) during class he/she will be asked to turn the phone off and surrender it to the instructor. If the student desires to use the phone to access course materials, the student is asked to inform the instructor prior to class for approval. If a student’s cell phone rings in class, the student will be required to turn off the phone immediately. If a student is expecting a very important call, he/she is to notify the instructor prior to class regarding the nature of the situation. The student will be asked to keep the phone silent, and upon receiving the call he/she must step out of the room to answer.

### **SAFETY**

College faculty, staff, and students participating in clinical and laboratory experiences that require the handling of blood, blood products, or body fluids are required to observe standard precautions and safety guidelines prescribed by the U.S. Public Health Service.

To ensure safety of the student in lab and in clinical practicum, informed consent to participate will be appropriately documented upon entry to the PTA Program. All measures are taken to protect the health and welfare of students and faculty participating in laboratory and clinical practicum. To ensure safety during student interactions, students receive comprehensive information on indications, contraindications, precautions, physiological effects, potential risks, and the appropriate application of various modalities; and, techniques prior to laboratory practice or clinical practicum. Program faculty or staff members supervise all lab sessions. PTA students have the right to reasonable accommodations to allow full participation in laboratory and clinical practicum. Students also have the right to defer participation in select laboratory activities in the event that the student presents with a documented medical condition that would predispose them to negative effects (i.e. pregnancy, post-surgical, acute illness). Students have the right to terminate treatment applications received during laboratory sessions should they experience negative effects.

In the event of a minor accident, a small first aid box is located in the LAB room UHS 236. An incident/accident report is then completed by the student(s) involved and an investigation will be conducted by the program director or faculty member. The incident/accident report will be kept in the student's file. In the event of a serious accident, NTCC utilizes the 911 system. NTCC has an Emergency Preparedness Flip Manual which is located in the PTA Lab room 236. A copy of this flip manual is also located in the office of the Director of the PTA Program.

NTCC offers no health services and **is not responsible for costs for hospitalizations, special health care such as consultations with specialists, nursing care, surgical operations or dental treatment.** The next of kin on record may be notified in uncertain or emergency situations or serious illness. Students may be transported to a general hospital (by ambulance at their own expense) when such action is deemed necessary by college officials.

### **SAFETY OF LAB EQUIPMENT**

All laboratory equipment used for skill development must be used under the supervision and/or approval of faculty members. This equipment is inspected and calibrated annually. In the event a student finds a piece of equipment in need of repair or identifies damaged equipment, he/she must immediately inform the program faculty for removal. All relevant operating instructions and calibration reports may be found in the Equipment Notebook kept in the director's office.

### **LABORATORY POLICIES**

A few lecture sessions and the majority of laboratory sessions will be held in the lab. In addition, open practice/lab time will be allowed at the discretion of the program faculty; the lab key can be obtained from program faculty or from the program secretary. Rules regarding unsupervised "open" lab times are as follows:

1. The student must sign-in and sign-out
2. No student is to work alone in the laboratory.
3. No use of electrical equipment, except through simulation, is allowed when a faculty member is not available.
4. No horseplay or rough-housing is allowed in the laboratory.
5. All equipment should be cleaned and returned to its proper place, the area cleaned after use, lights turned off, and the door locked by the last person to leave.
6. Safety guidelines are to be followed at all times.

### **CLEANLINESS IN THE PTA LAB AND CLASSROOM**

Thank you in advance for your cooperation and participation in keeping our facilities neat and attractive. At the end of each semester, faculty and students will perform a thorough cleaning of the lab and equipment. In order to maintain a clean and orderly work environment for all students using the PTA lab, the following outline of student responsibilities is provided and should be followed by all.

It is essential that all students work together to maintain an optimal learning environment so that time is not wasted during lab classes. While the maintenance department handles the floors and the garbage, they do not clean specific equipment in a specialized labs; this will be the students' responsibility.

### **General Lab Rules:**

1. All shoes, pens, and pencils must be removed when utilizing the plinths.
2. Do not use the plinths as a writing surface without a clipboard (the ink does not come off).
3. Food will be eaten at the desks only.
4. Please use trash containers to dispose of all drinks, food and related trash.

5. Food placed in the refrigerator must be labeled with your name and date. Food that is in the refrigerator for **more than one week** should be disposed of by anyone deeming the food “harmful” for consumption.
6. Clean out the microwave and surrounding area after each use.
7. The lab must be put back in its original condition after each lab.
  - All stools must be placed along each plinth or out of high traffic areas.
  - All equipment must be placed back in its original storage area after each lab session - this includes wheelchairs, BP cuffs, ADL equipment, ultrasound gel bottles, exercise equipment, etc.
  - The storage areas/practice areas must be left neat

## **DRESS FOR CLASS AND LABORATORY**

Students should be dressed appropriately for lab **prior to the beginning** of each lab session **unless specified differently**. Students not dressed properly for lab will receive a “0” for any lab work for that lab period. Students **not dressed properly** for lab practicals will **not be permitted to take the lab practical test and will receive a “0” for that test**. If appropriate attire is not available, a student may be asked to wear a patient gown for that lab period and will receive a “0” for that lab period. \*Remember, when not dressed properly for lab one deprives himself/herself and a partner of valuable learning opportunities.

- Option 1: NTCC PTA Program Polo, khaki pants and appropriate closed-toed shoes  
Option 2: NTCC PTA Program Scrubs and appropriate closed-toed shoes  
Option 3: NTCC PTA Program approved t-shirt and black athletic shorts and appropriate closed-toed shoes

Instructors will determine appropriate options per class/lab period.

Additional clothing requirements:

WOMEN: Back-fastening halter-type tops are required for some labs. Tops must allow for the back to be fully exposed. T-shirts will be worn over the clothes when practicing on a partner.

MEN: Tanks or bare torso are required for some labs.

HAIR& NAILS:

Nails must be short, clean and void of nail polish. Nails should be shorter than the fingertips when observed from the palm side. Hair should be clean and out of the way with rubber bands or hair clips as necessary. **Personal hygiene is very important since many of the lab techniques require close contact.**

## **LINEN**

A limited amount of linen is available for use in the laboratory; and, conservative use is strongly encouraged. This linen includes sheets, towels, pillow cases, and patient gowns. NTCC does not have a laundry service or laundry facilities available therefore, it is the responsibility of the students in the program to maintain clean linen. Each student will have the responsibility of taking the linen home and washing it 1-2 times during each semester. If a student does not have laundry facilities, he/she may pay another student to take his/her place; however, **the student is ultimately responsible for making sure the linen gets cleaned, folded, and restocked during his/her designated time**. All first year students are responsible for doing the laundry created by the PTA program.

## **GENERAL SAFETY RULES**

1. Learn and be familiar with the evacuation procedures and the location of fire extinguishers and emergency defibrillators.
2. Immediately report hazardous conditions, broken equipment, and defective tools to instructors, or the PTA program secretary.
3. Do not overload electrical circuits.
4. College property is no place for horseplay, fighting, teasing, and /or practical jokes; therefore, refrain from initiating or participating in any of the previously mentioned behaviors.
5. Do not use chairs, carts, tables, counters, boxes, rolling stools, or other substitutes for ladders or work platforms.
6. Disconnect all electrical cords by grasping the plug and carefully disengaging; NEVER yank the cord. Report any equipment that is damaged or in immediate need of repair to program faculty or program secretary.
7. Wipe up all spills immediately, regardless of who caused the spill. If unable to completely clean up the spill or if the floor remains slick after cleaning, report the area to the secretary so that she may contact Plant Services for clean-up.
8. Use proper body mechanics at all times. Instruction in proper body mechanics will be introduced in the first semester and strongly encouraged to begin implementing these practices throughout.
9. The use of alcoholic beverages, narcotic drugs, or derivatives thereof on college property or at a college and program functions is strictly prohibited; therefore, do not partake!

#### **NTCC Academic Honesty/Ethics Statement:**

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

#### **ADA Statement:**

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

#### **Family Educational Rights and Privacy Act (FERPA):**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

**Tentative Course Timeline (\*note\* instructor reserves the right to make adjustments to this timeline at any point in the term):**

<b>DATE</b>	<b>LECTURE</b>	<b>READING</b>
January 21	Cardiopulmonary Conditions & Interventions (part 1) Airway Clearance, Breathing Techniques, & Postural Drainage (part 2) (Audio)	Cameron Chs. 22 & 23
January 23	Congestive Heart Failure & Respiratory Failure (part 3)  (Audio)	Cameron Chs. 25 & 26
January 28	Labs for Cardiopulmonary, Airway Clearance, Breathing Techniques, Postural Drainage  <i>*Exam I available 1/30: covers 1/21, 1/23, 1/28; Due 2/1</i>	
January 30	Proprioceptive Neuromuscular Facilitation (PNF) Upper Extremity & Lower Extremity Patterns Audio Lecture and Lab	Cameron Ch. 16, pgs. 254-256 Martin Ch. 9 Shankman pgs. 46-49  New: Manske pgs. 77-78
	<i>*Exam I Due – February 1<sup>st</sup></i>	
February 4	Arthritis: Osteoarthritis and Rheumatoid arthritis Audio Lecture and Lab	Cameron Ch. 6 Shankman pgs. 402-408 Goodman Ch. 17 pgs. 683-692 & pgs. 676-682  New: Manske 467-471
February 6 Bryan Lick, PT	TJR/Arthroplasty & Surgical Interventions <i>Protocol Assignment – groups assigned</i>  <i>*Exam II available 2/7: covers 1/30, 2/4, 2/6; Due 2/13</i>	Cameron Ch. 10
February 11	Gait Analysis (Normal Gait) Audio Lecture    Geriatric Rehab: Coordination and Balance (Audio)	Cameron Ch. 32 Shankman Ch. 14 Martin pg. 341-342; 87-88 New: Manske Ch. 14  Cameron Ch. 13 Martin pgs. 86-87 Shankman Ch. 6 New: Manske Ch. 7
February 13	Balance and Coordination Lab Gait lab  <i>*Exam II Due – February 13<sup>th</sup></i>	
February 18 Bryan Lick, PT	Spinal Disorders & Surgical Interventions & Lab <i>Protocols Due</i>	Cameron Ch. 8 & Ch. 11

	<i>*Exam III available 2/19: covers 2/11, 2/13, 2/18; Due 2/28<sup>th</sup></i>	
February 20 (1:00)	Mid-Term Lab Practical	
February 24 (8:00)	Mid-Term Lab Practical	
February 25 (1:00)	Mid-Term Lab Practical	
	<i>*Exam III Due – February 28<sup>th</sup></i>	
March 3	Scoliosis Audio Lecture  <i>Osteoporosis Audio Lecture</i>  Post-Polio Syndrome Audio Lecture and Lab  <i>Geriatric Posture</i>	Shankman Ch. 20, pgs. 337-339 Cameron Ch. 4 New: Manske pgs. 387-389  <i>Cameron Ch. 3</i> <i>Shankman pgs. 134-135 &amp; 423-414</i> <i>New: Manske pgs. 478-479</i> <i>Goodman pgs. 559-560</i>  Martin pgs. 483-487 Goodman pgs. 894-896  <i>Cameron Ch. 4</i> <i>Martin pg. 86-87</i>
March 5	Osteoporosis/Scoliosis & Post-Polio Labs  <i>*Exam IV available 3/6: covers 3/3, Due 3/12</i>	References above
March 10	Amputations & Prosthetics/Orthotics (Audio) Amputation Dressings (Audio)	Cameron Ch. 12, 34 Shankman Ch. 26 New: Manske Ch. 26
March 12	Prosthetics (Audio) Orthotics (Audio)  <i>*Exam IV Due – February 12<sup>th</sup></i>	Cameron Ch. 12, 34 Shankman Ch. 26 New: Manske Ch. 26
<b>March 16-20</b>	<b>Spring Break ☺</b>	
March 26	Amputation Residual Limb Dressing Lab Amputation Exercise and Gait Lab Activity	Handout on Bb – Please print and have ready for lab
March 31	Environmental Examination and Modification  <i>*Exam V available 4/1: covers 4/10, 4/12, 4/26, 4/31; Due 4/9</i>	
April 2	Thoracic Outlet Syndrome Lecture (Audio) (*New terminology: Thoracic Inlet Syndrome)  Reflex Sympathetic Dystrophy/CRPS (Audio)  <i>*Exam V Due – April 9<sup>th</sup></i>	

April 7	TOS and CRPS Lab	
April 9 Betty Westbrook, PTA	Vascular and Lymphatic Disorders	Cameron Ch. 27 & powerpoint
April 14	Vestibular Rehabilitation	Cameron Ch. 13, pgs. 201-202 Goodman Ch. E-11
April 16	Vestibular Lab	
April 21	Posture Deviations with Pregnancy	Cameron Ch. 4
April 23 Dr. Gleaton, PT	Gender Healthcare	
	<i>*Exam VI available 4/24: covers 4/24, 4/7, 4/9, 4/14, 4/16, 4/21, 4/23; Due 5/1</i>	
April 28	Final Lab Practical Video Project – Independent Study	
April 30	Final Lab Practical Video Due by 3:00 p.m.	
	<i>*Exam VI Due – May 1<sup>st</sup></i>	
<b>May 11</b>	<b>COMPREHENSIVE FINAL EXAMINATION</b>	