



Physical Agents PTHA 1531

Course Syllabus: Spring 2019

"Northeast Texas Community College exists to provide responsible, exemplary learning opportunities."

Dr. Nancy R. Wilson, PT

Office: UHS 105

Phone: 903-434-8323

Email: nwilson@ntcc.edu

Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	1:00-3:00	8:00-11:00	1:00-3:00	8:00-11:00		

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description: The study of the biophysical principles and application of therapeutic physical agents and therapeutic massage with specific emphasis on indications, contraindications, medical efficacy, and physiological effects. Pre-requisite: Anatomy & Physiology I & II, Functional Anatomy

Required Textbook(s):

1. Physical Agents in Rehabilitation, M. Cameron, 4th Ed., Elsevier/Saunders, 2013

Publisher: Elsevier

ISBN Number: 978-1-4557-2848-0

Recommended Reading(s): TBA

Student Learning Outcomes:

COURSE LEARNING OUTCOMES

The student will safely and effectively apply physical agents and therapeutic massage; utilize appropriate data collection techniques to monitor response to treatment, discuss biophysical principles as they relate to the application of physical agents and therapeutic massage; and utilize relevant communication techniques.

GENERAL OBJECTIVES

1. Behave in a professional manner appropriate to clinical setting during lab practicals.
2. Demonstrate professional behavior in interactions with instructors/students during classroom and lab activities.
3. Project professional image (dress/hygiene) on field trips and field experiences.
4. Demonstrate acceptance and application of faculty feedback on written, oral and practical exams.
5. Describe errors and discuss correct responses upon completion of practical exam or skill check.
6. Discuss ways to demonstrate empathy in dealing with a patient in pain or under stress.
7. Integrate the problem-solving process for determining techniques for the application of a modality.

SPECIFIC OBJECTIVES

On a written examination with 75% proficiency, the student will be able to identify the physiological effects, indications, contraindications, and precautions of, and principles associated with:

1. Therapeutic Massage
2. Superficial Heat Agents/ Cryotherapy
3. Hydrotherapy/ Aquatic therapy
4. Ultrasound/ Phonophoresis/Iontophoresis
5. Various electrical stimulation agents
6. Anodyne and Laser
7. Cervical and pelvic mechanical traction
8. Intermittent compression/volumetric measurement
9. Various electromagnetic radiation agents
10. Continuous passive motion machines

On a lab partner and/ or on a lab practical examination with 75% proficiency, the student will be able to demonstrate proficiently (accurate, safe and timely) the appropriation of:

1. Therapeutic Massage
2. Various thermal modalities Moist heat, Paraffin, Fluidotherapy, Hydrotherapy
3. Various cryotherapy modalities including ice massage, ice packs/ cold packs, cryocuff
4. Contrast baths
5. Ultrasound application
6. Phonophoresis, Iontophoresis
7. Shortwave diathermy
8. Various electrical stimulation modalities including portable NMS, TENS, Russian E-Stim, High volt pulsed current, and Interferential/Pre-modulated current
9. Cervical traction and Pelvic traction in supine and prone positions
10. Intermittent compression/Continuous passive motion (CPM)

In addition, the student will:

11. Administer various questionnaires, graphs, behavior and visual analog scales for pain.
12. Rate student patient/lab partner's pain level before and after application of modalities
13. Given a Plan of Care, the student will be able to implement treatment using appropriate modalities
14. Measure sensory responses to light touch and heat/cold prior to the application of a modality
15. Construct accurate descriptions of the sensations associated with the application of a modality
16. Explain the main theories of pain control and select appropriate physical agent to relieve various types of pain
17. Perform girth and volumetric assessments to determine limb volume and edema when using intermittent compression.
18. Demonstrate safety before, during and after all labs/practical tests.
19. Perform proper body mechanics when applying or setting up modalities.
20. Explain to the student patient/lab partner the purpose of modality and application.
21. Describe basic principles of electricity to include sound, light, electricity, thermodynamics,

- electromagnetics, and electronic circuitry.
22. Explain to the student patient/lab partner the precautions and physiological effects of modality application.
 23. Identify and demonstrate safety aspects/measures to be used in the application of all agents.
 24. Perform adequate monitoring and differentiation of patient's physiological and integumentary responses/changes to treatment before, during and after application.
 25. Screen for absent or altered sensation prior to application of specific agent.
 26. Explain purpose of and apply percussion technique utilized with massage during appropriate phase of respiration.
 27. Perform various data collection methods for recognizing changes in the direction and magnitude of patient's state of arousal, mentation, and cognition.
 28. Recognize cognitive changes in patient status and inform the supervising physical therapist.
 29. Recognize changes in patient status and inform the supervising physical therapist.
 30. Write a SOAP note for each mock treatment performed.

Exemplary Educational Objectives:

N/A

SCANS Skills:

Scans addressed as follows: Information (acquires and evaluated information, organizes and maintains information, interprets and communicates information); Interpersonal (participates as a team member, teaches others, serves clients/customers, exercises leadership, negotiates to arrive at a decision); Technology (selects technology, applies technology, maintains & troubleshoots technology); Basic Skills (reading, writing, arithmetic, listening, speaking); Thinking Skills (decision making, problem solving, seeing things in the mind's eye, knowing how to learn, reasoning); Personal Qualities (responsibility, self-esteem, sociability, self-management, integrity/honesty).

Lectures & Discussions:

See Course Schedule

Evaluation/Grading Policy:

Lecture Exams (4).....	50%
Mid-term Lab Practical	10%
Class participation & attendance/Check-offs.....	5%
Comprehensive Lecture Final Exam	25%
Lab Practical Final (Electrotherapy).....	10%

Tests/Exams:

See Course Schedule

Assignments:

N/A

Other Course Requirements:

Field trip to TRMC for Traction Lab

Student Responsibilities/Expectations:

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 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 (2nd) 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.

ACADEMIC HONESTY POLICY

“Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. **NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook.**”

In addition to upholding the NTCC Academic Honesty Policy, students in the PTA program are required to follow the honor code provided in the program policy and procedure manual. The program honor code states that you will neither give nor receive any unauthorized assistance from any person, paper, or object on any test, paper, examination, or project. This includes talking about lab practical exams, regular exam questions, looking at copies of old tests from previous students, copying or allowing anyone to copy off of your test or assignment, and discussing any aspect of an exam with a student who has not yet taken the test. When using another person’s words or ideas, credit should be given to the source. Failure to abide by this policy may result in expulsion from the PTA Program.

Violations of this policy will be brought to the attention of the student by the instructor. If there is suspicion of wrongdoing without corroborating evidence, the matter will be discussed with the student and a written warning/contract will be issued if warranted. If there is clear evidence that a violation has taken place, the student will receive a grade of “0” for that test/assignment in question; and the instructor will impose a sanction ranging from a written warning to expulsion from the course with a failing grade.

If the student does not feel that the issue is satisfactorily resolved, the student should contact the PTA Program Director to discuss the matter. If the matter cannot be resolved at that level, the student may contact the Dean of Allied Health, followed by the Vice President for Instruction and Student Development. If the issue is not satisfactorily resolved at the end of this process, the student may initiate a formal grievance procedure outlined in the NTCC Student Handbook and in this manual.

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.

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.

Academic Ethics

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

LABORATORY POLICIES

The PTA laboratory will be the students' "second home" for the next 17 months. 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!

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 the College Connection; 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#)

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.

Other Course Policies:

POLICY ON CIVILITY AND CELL PHONES IN THE CLASSROOM AND LABORATORY

Students are expected to assist in maintaining a classroom environment that is conducive to learning. If a student brings a cell phone to class/ lab, make sure it is turned off or on silent mode. The student will not be allowed to answer his/her cell phone during class/lab. If the student is expecting a very important call, they are to notify the instructor prior to class regarding the nature of the situation. Cell phones must be put away, out of sight, during tests. Inappropriate or distracting classroom behavior is prohibited in order to assure that everyone has opportunity to gain from time spent in class. Should a disruptive classroom incident occur, the faculty member in charge may remove the student on either a temporary or permanent basis. Students have the right to appeal through appropriate channels. type other course policies here. For example: cell phone policy