



# PTHA 1321 PATHOPHYSIOLOGY FOR THE PHYSICAL THERAPIST ASST.

(Hybrid)

Course Syllabus: Fall 2021

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

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	By appointment		By appointment	By appointment		By appointment

***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:** 3 Credit Hours. Study of the pathogenesis, prognosis, and therapeutic management of diseases/ conditions commonly encountered in physical therapy. Four hours of lecture a week

**Prerequisite(s):** Admission to the program

## GENERAL COURSE LEARNING OUTCOMES

Identify and explain the pathogenesis of selected diseases/conditions relevant to physical therapy. Determine aspects of Pathophysiology that affect physical therapy treatment; describe the current response to acute physiological change in patients' conditions and identify pertinent pharmacological information and its impact on patient care.

## GENERAL OBJECTIVES

**Objectives will be evaluated using self and instructor assessment rubrics targeting professional behaviors.**

The student:

1. Attends all classes and arrive on time.
2. Listens attentively to instruction in class and lab
3. Projects professional image (dress/hygiene) in class, lab, field trips and field experiences
4. Discusses the potential implications of non-attendance and tardiness in the classroom.
5. Participates voluntarily in class and lab sessions.
6. Demonstrates professional behavior in interactions with instructors/students during classroom and lab activities.
7. Demonstrates acceptance and application of faculty feedback on written, oral and practical exams.
8. Participates in the professional organization through attendance of a national, state, or district activity.
9. Recognizes the need for participation in events to promote access to or awareness of physical therapy.
10. Acknowledges and describes errors and discuss correct responses upon completion of practical exam and skill check.

## SPECIFIC OBJECTIVES

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

1. Define pathology and related terminology
2. Identify and explain the pathogenesis of selected diseases and conditions relevant to physical therapy.
3. Describe how disease affects homeostasis.
4. Explain the importance of patient history in the treatment of diseases.
5. Differentiate the Models of Disability (Nagi vs. ICF).
6. Describe the purpose of inflammation.
7. List the main signs of acute and chronic inflammation and describe the physiologic mechanisms involved in their production.
8. Differentiate between acute and chronic inflammation.
10. Contrast benign and malignant tumors.
11. List the warning signs of cancer.
12. Describe the local and systemic effects of cancer.
13. List common risk factors for cancer.
14. Identify treatment related to various forms of cancer.
15. Recognize when treatment should not be provided due to changes in the patient's status.
16. Differentiate various pathologies related to age, gender, race, and ethnicity.
17. Describe how responses/results to common pathologic conditions may vary with age, gender, and race.
18. Identify selected pathologies for which racial or ethnic groups may be predisposed.
19. Describe pathologies related to the immune system.
20. Describe the function and anatomical components of the immune system.
21. Identify sign and symptoms, etiology, diagnosis, prognosis, and prevention related to the immune system.
22. Identify treatment related to various conditions of the immune system.
23. Recognize when treatment should not be provided due to changes in the patient's status and reports this to the supervising PT.
24. Describe pathologies related to the integumentary system.
25. Describe the function and anatomical components of the integumentary system.
26. Identify sign and symptoms, etiology, diagnosis, prognosis, and prevention related to the integumentary system.
27. Identify treatment related to various conditions of the integumentary system.
28. Describe pathologies related to the endocrine and Metabolic systems.
29. Describe the function and anatomical components of the endocrine and metabolic systems.
30. Identify sign and symptoms, etiology, diagnosis, prognosis, and prevention related to the endocrine and metabolic systems.
31. Identify treatment related to various conditions of the endocrine and metabolic systems.
32. Describe pathologies related to the respiratory system.
33. Describe the function and anatomical components of the respiratory system.
34. Identify sign and symptoms, etiology, diagnosis, prognosis, and prevention related to the respiratory system.
35. Identify treatment related to various conditions of the respiratory system.
36. Describe pathologies related to the musculoskeletal system.
37. Describe the function and anatomical components of the musculoskeletal system.
38. Identify sign and symptoms, etiology, diagnosis, prognosis, and prevention related to the musculoskeletal system.
39. Identify treatment related to various conditions of the musculoskeletal system.
40. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the cardiovascular system.
41. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the hematologic system.
42. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the hepatic, pancreatic, and biliary systems.
43. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the gastrointestinal system.
45. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the renal and urologic systems.

46. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the male and female reproductive systems.
47. Describe pathologies resulting from congenital and childhood diseases and conditions.
48. Describe the function and anatomical components of congenital and childhood diseases and conditions.
49. Identify sign and symptoms, etiology, diagnosis, prognosis, and prevention related to congenital and childhood diseases.
50. Identify treatment related to various childhood diseases.
51. Identify signs and symptoms, etiology, diagnosis, prognosis, and prevention related to the bone, joint, and soft tissue diseases and disorders.
52. Describe the various problems affecting multiple systems of the body
53. Describe and recognize infectious diseases and the etiology of each disease.
54. Describe lab tests and values and predict the impact of various results on physical therapy.

#### METHODS OF PRESENTATION

1. Lecture – classroom and audio
2. Assigned Readings
3. Multi-media presentation
4. Discussion & Group activities

#### MINIMUM TECHNOLOGY REQUIREMENTS

- Daily high speed internet access
- Microsoft Word
- Power point
- Portable storage device such as a Jump drive/Thumb drive

#### REQUIRED COMPUTER LITERACY SKILLS

- Word Processing skills
- Email skills

#### COMMUNICATION

- **EMAIL:** Please check your NTCC email EVERYDAY. Email is the official form of communication used here at NTCC. All emailed questions to the instructor will be responded to within 24 hours, but usually within a few hours when possible. I will normally respond to you at least acknowledging that I received your inquiry and will answer as soon as possible.
- **TEXT MESSAGE NOTIFICATIONS:** You are required to sign up for the text message notifications via Remind. This will enable you to receive important class announcements and reminders from me via text message so that you will not miss out on any assignment changes or important updates. Please continue to check your NTCC email daily. If you do not own a cell phone, you can receive these same reminders through your email... the instructions are also in the PDF instruction sheet you received at orientation.
- **ANNOUNCEMENTS:** These can be found in Blackboard under the course link on your Bb homepage. Please make sure you are reading any announcements thoroughly when they are posted there.

#### OUTLINE OF CONTENT

1. Introduction to Concepts of Pathology
2. Problems Affecting Multiple Systems
3. Injury, Inflammation, and Healing
4. Immune System
5. Infectious Disease
6. Oncology & Musculoskeletal Neoplasms
7. Integumentary System
8. The Endocrine and Metabolic Systems
9. Respiratory System

10. Cardiovascular System
11. Hematologic System
12. Hepatic, Pancreatic, and Biliary Systems
13. Introduction to Pathology of the Musculoskeletal System
14. Infectious Diseases of the Musculoskeletal System
15. Bone, Joint, and Soft Tissue Diseases and Disorders
16. Genetic and Developmental Disorders
17. Gastrointestinal System
18. Renal and Urologic Systems
19. Male & Female Reproductive Systems

## **REQUIRED AND RECOMMENDED READING**

*Pathology for the Physical Therapist Assistant*, 2<sup>nd</sup> ed., Goodman et.al., Saunders/Elsevier

## **SCANS**

Scans addressed as follows: Information (acquires and evaluates information, organizes and maintains information, interprets and communicates information, uses computers to process information); Interpersonal (teaches others, serves clients/customers, works with cultural diversity); Basic Skills (reading, writing, listening, speaking); Thinking Skills (creative thinking, 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).

## **Evaluation/Grading Policy:**

Unit Exams (4) . . . . .	75%
Research Paper . . . . .	25%

## **GRADING**

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

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.

## **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 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.

## 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.**

## **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.

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. A grade below 75 constitutes unsatisfactory understanding of the course.

### **Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements**

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC’s website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

## **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.

## **PROGRAM POLICY ON DISHONESTY**

It is the responsibility of students and faculty to help maintain scholastic integrity at the College by refusing to participate in or tolerate scholastic dishonesty. **Plagiarism** and other **forms of dishonesty** undermine the very purpose of the college and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in the Northeast Texas Community College Student Handbook and in this manual. Personal and professional ethics are inherent in the field of physical therapy therefore; the

highest standards of honesty and integrity must be adhered to. This Honor Code, in its simplest form means that you will neither give nor receive any unauthorized assistance from any person, paper, or object on any examination, lab practical, paper, 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 or practical with a student who has not yet taken the test and/or practical (this includes the State Board exam).

With regards to research papers, in-services, group projects, etc. the use of another person's words or ideas must be cited and credit given to the source(s). Examples of plagiarism include:

- The inclusion of another person's exact words in a paper or assignment without placing quotation marks around the words to indicate an exact quote, *even if the source is cited*;
- Using **several** consecutive sentences written by another person, changing the words somewhat to keep the passage from being an exact quote, *even if the source is cited*;
- Presenting someone else's ideas without citing that person as the original thinker;
- Submitting a paper written in part or in whole by another person;
- Any other act intended to circumvent the process of performing and presenting original academic research in completion of a course assignment.

Violations of any portion 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 dismissal 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 Executive Vice President for Instruction. 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.

#### **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.

PTHA 1321 - Lecture Schedule  
October 5 – December 2  
Fall 2021

**NOTE: Classes designated by the \* symbol constitutes on-line lecture and independent preparation**

<b>Date</b>		<b>Topic</b>	<b>Reading</b>
October	5	*Introduction to Concepts of Pathology (Audio)	Ch. 1
		*Problems Affecting Multiple Systems (Audio)	Ch. 2
October	6	F2F class Introduction	
October	7	*Injury, Inflammation, and Healing (Audio)	Ch. 3
		*The Immune System (Audio)	Ch. 4
October	12	*Infectious Disease (Audio)	Ch. 5
<i>(Exam I chs. 1, 2, 3, 4, 5 available in testing center October 12th)</i>			
<i>Exam I Due 14<sup>th</sup></i>			
October	15	Cardiovascular System	Ch. 9
October	19	*The Integumentary System (Audio)	Ch. 7
October	22	The Respiratory System	Ch.11
October	26	*The Endocrine and Metabolic Systems (Audio)	Ch. 8
October	29	Oncology & Musculoskeletal Neoplasms	Chs. 6 & 16
<i>(Exam II chs. 6, 16, 7, 8, 9, 11 available in testing center Nov 1st)</i>			
<i>Exam II Due Nov.4<sup>th</sup></i>			
<b>October 29 Research paper topic approval</b>			
November	2	*Introduction to Pathology of the Musculoskeletal System (Audio)	Ch. 13
		*Infectious Diseases of the Musculoskeletal System (Audio)	Ch. 15
		*Bone, Joint, and Soft Tissue Diseases and Disorders (Audio)	Ch. 17
November	5	Hematologic System	Ch. 10



Hepatic, Pancreatic, and Biliary Systems

Ch. 12

*(Exam III chs. 10, 12, 13, 15, 17 available in testing center November 8<sup>th</sup>)*

***Exam III Due November 11<sup>th</sup>***

November 9 \*Genetic and Developmental Disorders (Audio) Ch. 14

November 12 Gastrointestinal System E 4

November 19 Renal and Urologic Systems E 5

November 23 Male & Female Reproductive Systems E 9 & E10

*(Exam IV chs. 14, E4, E5, E9, E10 available in testing center November 29<sup>th</sup>)*

***Exam IV Due December 2nd***

***Research paper due on November 30<sup>th</sup>***