STATE UNIVERSITY OF NEW YORK COLLEGE OF TECHNOLOGY CANTON, NEW YORK



# **MASTER SYLLABUS**

PHTA 204 – Cardiopulmonary and Integumentary Pathologies

CIP Code: 51.0806

Created by: Deborah Molnar Updated by: Deborah Molnar

> School of Science, Health, & Professional Studies Physical Therapist Assistant Fall 2026

A. TITLE: Cardiopulmonary and Integumentary Pathologies

### B. COURSE NUMBER: PHTA 204

C. CREDIT HOURS (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity):

# Credit Hours per Week	4
# Lecture Hours per Week	3
# Lab Hours per Week	3
Other per Week	

#### D. WRITING INTENSIVE COURSE:

Yes	
No	Х

#### E. GER CATEGORY:

Does course satisfy a GER category(ies)? If so, please select all that apply.

[1-2] Communication	
[3] Diversity: Equity, Inclusion & Social Justice	
[4] Mathematics & Quantitative Reasoning	
[5] Natural Science & Scientific Reasoning	
[6] Humanities	
[7] Social Sciences	
[8] Arts	
[9] US History & Civic Engagement	
[10] World History & Global Awareness	
[11] World Languages	

## F. SEMESTER(S) OFFERED:

Fall	Х
Spring	
Fall and Spring	

G. COURSE DESCRIPTION: In this course, students will apply musculoskeletal knowledge from the previous semester to amputee and prosthetic rehabilitation, and orthotics. Students will study the cardiovascular, pulmonary, and lymphatic systems and related pathologies. Cardiopulmonary rehabilitation principles and management will be discussed and applied, including management in the acute care/critical care environment. Conditions of the integumentary system will be discussed with emphasis on physical therapy management of wounds and burns.

# H. PRE-REQUISITES: PHTA 104, BIOL 217, BIOL 218 CO-REQUISITES: None

## I. STUDENT LEARNING OUTCOMES:

Course Student Learning Outcome [SLO] Program Student				
	Learning Outcome	GER	ISLO & Subsets	
	[PSLO]			
<ol> <li>Apply knowledge of anatomy and physiology to thoroughly understand clinical presentation, medical management, and principles of rehabilitation for:         <ul> <li>Cardiopulmonary Pathologies</li> <li>Peripheral Vascular Disease</li> <li>Amputations</li> </ul> </li> </ol>	PSLO #5 Communicate an understanding of the plan of care developed by the physical therapist to achieve short and		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills	
<ul><li>d. Diabetes Mellitus</li><li>e. Integumentary Injuries</li><li>f. Lymphedema</li></ul>	long term goals and intended outcomes.			
<ol> <li>Appropriately instruct patients with amputation, cardiopulmonary, or integumentary pathology in rehabilitation techniques based on the physical therapy plan of care.</li> </ol>	PSLO #9 Participate in educating and providing patient- related instruction to patients, family members, and caregivers based on the plan of care.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills	
<ol> <li>Demonstrate comprehension of the physical therapy plan of care for patients with cardiopulmonary and integumentary pathologies and amputations, through case scenario implementation.</li> </ol>	PSLO #5 Communicate an understanding of the plan of care developed by the physical therapist to achieve short and long term goals and intended outcomes.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills	
<ol> <li>Demonstrate awareness of changes in cardiopulmonary status and make appropriate decisions using the Problem Solving Algorithm for the PTA.</li> </ol>	PSLO #8 Demonstrate sound clinical problem solving in the provision of physical therapy services.		ISLO 2 Critical Thinking Problem Solving [PS]	
<ol> <li>Demonstrate effective communication skills while acting as a student PTA during lab competencies and practicals.</li> </ol>	PSLO #1 Communicate verbally and non- verbally with the		ISLO 1 Communication Skills <i>Oral (O)</i>	

		patient, the physical		
		therapist, health		
		care delivery		
		personnel, and		
		others in an		
		effective,		
		appropriate, and		
		capable manner.		
ŀ	6. Produce clear, accurate, concise, timely,	PSLO #10		
	and legible documentation.	Complete accurate		
		and timely		
		documentation in		ISLO 5
		accordance with		Industry, Professional,
		regulatory		Discipline Specific
		guidelines to		Knowledge and Skills
		support the delivery		
		of physical therapy		
		services.		
-	7 Provide accurate hilling following case	PSI () #13		
	scenario implementation	Participate in		
	section implementation.	practice		
		management		151.0.5
		functions within a		Industry Professional
		nhysical therapy		Discipline Specific
		service including		Knowledge and Skills
		hilling and		Knowledge and Skins
		organizational		
		nlanning		
-	8 Demonstrate competence in performing			
	physical therapy interventions related to	Demonstrate		
	rehabilitation of the patient with	competence in		
	amputation, cardiopulmonary and/or	implementing and		
	integumentary pathology, including	adjusting selected		ISLO 5
	Airway Clearance Techniques,	components of		Industry, Professional,
	Therapeutic Exercise, Functional	interventions		Discipline Specific
	Iraining, Prostnetic Iraining, and	identified in the		Knowledge and Skills
	would management.	nlan of care		
		established by the		
		physical therapist		
╞	9 Demonstrate competence in performing			
	9. Demonstrate competence in performing	Demonstrate		
	data collection techniques related to	competency in		
	amputation cardionulmonany and	nerforming		ISLO 5
	aniputation, caruiopunnonary, anu	components of data		Industry, Professional,
	integumentary pathology, during case	collection skills		Discipline Specific
	scenario implementation.	essential for		Knowledge and Skills
		carrying out the		
		plan of care		
		plati of care.		

10. Maintain safe working environment and	PSLO #4	ISLO 5
assures safety of patient and self during	Demonstrate safe	Industry, Professional,
all interactions.	practice in all	Discipline Specific
	situations.	Knowledge and Skills
11. Demonstrate the ability to adjust	PSLO #6	
components of intervention as	Demonstrate	
necessary and within the guidelines of	competence in	
the plan of care based on patient	implementing and	
response during case scenario	adjusting selected	ISLU 5
implementation.	components of	Dissipling Specific
	interventions	Discipline Specific
	identified in the	Knowledge and Skills
	plan of care	
	established by the	
	physical therapist.	

KEY	Institutional Student Learning Outcomes		
	[ISLO 1 – 5]		
ISLO #	ISLO & Subsets		
1	Communication Skills		
	Oral [O], Written [W]		
2	Critical Thinking		
	Critical Analysis [CA], Inquiry & Analysis [IA], Problem Solving [PS]		
3	Foundational Skills		
	Information Management [IM], Quantitative Lit, /Reasoning [QTR]		
4	Social Responsibility		
	Ethical Reasoning [ER], Global Learning [GL],		
	Intercultural Knowledge [IK], Teamwork [T]		
5	Industry, Professional, Discipline Specific Knowledge and Skills		

## J. APPLIED LEARNING COMPONENT:

Yes	х
No	

If yes, select [X] one or more of the following categories:

Classroom / Lab	х	Community Service	
Internship		Civic Engagement	
Clinical Practicum		Creative Works/Senior Project	
Practicum		Research	
Service Learning		Entrepreneurship [program, class, project]	

- TEXTS: Fulk, G.D., Chui, KK (2024) *O'Sullivan and Schmitz's Physical Rehabilitation*, Philadelphia: F.A. Davis.
- L. REFERENCES: Cameron, M.H. (2023) *Physical Agents in Rehabilitation,* St. Louis: Elselvier. Kisner, C and Colby, L.A., (2023) Therapeutic Exercise: Foundations and Techniques, Philadelphia: F.A. Davis.
- M. EQUIPMENT: Physical therapy lab equipment and supplies; use of the nursing Simulation Hospital for 1-2 lab sessions
- N. GRADING METHOD: A-F as per PTA program standards The grading scale for the Physical Therapist Assistant program is as follows:
  - = 90 100= 70-74А C = 85-89 D+ = 65-69 B+ B = 80-84D = 60-64C+ = 75-79F = below 60

To meet PTA program requirements, PTA students are required to achieve a grade of C+ or higher in this course.

- O. SUGGESTED MEASUREMENT CRITERIA/METHODS: Written Exams, PSA Case Assignment, Lab Competencies, Lab Practical, Quizzes, Homework Assignments
- P. DETAILED COURSE OUTLINE:
- I. Amputations, Prosthetics, Orthotics
- A. Lower extremity amputation
- **B.** Transtibial Prosthetics

K.

- C. Transfemoral Prosthetics
- D. Lower Extremity Orthotics
- II. Cardiopulmonary Pathologies
- A. Cardiopulmonary A&P
- B. Cardiac Pathologies related to O2 supply
- C. Cardiac Pathologies related to contractility
- D. Cardiac Pathologies related to electrical conduction
- E. Restrictive Pulmonary Disease/Dysfunction
- F. Obstructive Pulmonary Disease
- G. Cardiopulmonary Pharmacology/Lab Values
- H. Cardiopulmonary Rehabilitation

III. Diabetes and Peripheral Vascular Disease

- A. Diabetes Mellitus Type I/II
- B. Arterial PVD
- C. Venous PVD

IV. Integumentary Pathologies

A. Wound Healing

B. Burns

C. Lymphedema

#### Q. LABORATORY OUTLINE:

- I. Amputee Rehab
- A. Acute Amputee Rehab
- B. Pre-Prosthetic Training
- C. Prosthetic Training
- II. Cardiopulmonary
- A. Cardiopulmonary Assessment Techniques
- B. Airway Clearance Techniques
- C. Tubes, Lines, and Wires
- D. Cardiopulmonary Rehabilitation
- III. Integumentary
- A. Wound Care
- B. Burn Rehab
- C. Lymphedema Management