

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



**MASTER SYLLABUS**

**PHTA 204 – Cardiopulmonary and Integumentary Pathologies**

**Created by: Deborah Molnar**

**Updated by: Deborah Molnar**

**School of Science, Health, and Criminal Justice**

**Department: Physical Therapist Assistant**

**Semester/Year: Fall 2019**

- A. **TITLE:** Cardiopulmonary and Integumentary Pathologies
- B. **COURSE NUMBER:** PHTA 204
- C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

**# Credit Hours:** 4  
**# Lecture Hours:** 3 per week  
**# Lab Hours:** 3 per week

**Course Length:** 15 Weeks

- D. **WRITING INTENSIVE COURSE:** Yes  No
- E. **GER CATEGORY:** None:  Yes: GER  
*If course satisfies more than one:* GER
- F. **SEMESTER(S) OFFERED:** Fall  Spring  Fall & Spring

G. **COURSE DESCRIPTION:**

In the first half of the semester students study the cardiopulmonary system and related pathologies. Cardiopulmonary rehabilitation principles and management are discussed and applied. Students learn about diabetes and peripheral vascular disease as a lead-in to amputee and prosthetic rehabilitation. Management of injuries to the integumentary system, including wounds, burns, and edema are studied.

- H. **PRE-REQUISITES:** None  Yes  **If yes, list below:**

PHTA 104, BIOL 217, BIOL 218, or permission of instructor.

**CO-REQUISITES:** None  Yes  **If yes, list below:**

**I. STUDENT LEARNING OUTCOMES: (see key below)**

By the end of this course, the student will be able to:

<u>Course Student Learning Outcome</u> <u>[SLO]</u>	<u>Program Student Learning Outcome</u> <u>[PSLO]</u>	<u>GER</u> <u>[If Applicable]</u>	<u>ISLO &amp; SUBSETS</u>	
1. Apply knowledge of anatomy and physiology to thoroughly understand clinical presentation, medical management, and principles of rehabilitation for: a. Cardiopulmonary Pathologies b. Peripheral Vascular Disease c. Amputations d. Diabetes Mellitus e. Integumentary Injuries f. Lymphedema	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.		5-Ind, Prof, Disc, Know Skills ISLO ISLO	None Subsets Subsets Subsets
2. Appropriately instruct patients with amputation, cardiopulmonary, or integumentary pathology in rehabilitation techniques based on the physical therapy plan of care.	PSLO #9 Participate in educating and providing patient-related instruction to patients, family members, and caregivers based on the plan of care.		5-Ind, Prof, Disc, Know Skills	None
3. Demonstrate comprehension of the physical therapy plan of care for patients with cardiopulmonary and integumentary pathologies and amputations, through case scenario implementation.	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.		5-Ind, Prof, Disc, Know Skills ISLO ISLO	None Subsets Subsets Subsets
4. Demonstrate awareness of changes in cardiopulmonary status and make appropriate decisions using the Problem Solving Algorithm for the PTA.	PSLO #8 Demonstrate sound clinical problem solving in the provision of physical therapy services.		2- Crit Think ISLO	PS Subsets Subsets Subsets
5. Demonstrate effective communication skills while acting as a student PTA during lab competencies and practicals.	PSLO #1 Communicate verbally and non-verbally with the patient, the physical therapist, health care delivery personnel, and others in an effective, appropriate, and capable manner.		1-Comm Skills	O
6. Produce clear, accurate, concise, timely, and legible documentation.	PSLO #10 Complete accurate and timely documentation in accordance with regulatory guidelines to support the		5-Ind, Prof, Disc, Know Skills ISLO ISLO	None

	delivery of physical therapy services.			
7. Recognize individual and cultural differences and respond appropriately through case scenario implementation.	PSLO #2 Recognize individual and cultural differences and respond appropriately in all aspects of physical therapy services.		4-Soc Respons ISLO ISLO	IK Subsets Subsets Subsets
8. Describe effective interaction with appropriate members of the healthcare team during case scenario implementation.	PSLO #12 Participate in activities that contribute to the effective function of the healthcare environment.		5-Ind, Prof, Disc, Know & Skills	None
9. Provide accurate billing following case scenario implementation.	PSLO #13 Participate in practice management functions within a physical therapy service, including billing and organizational planning.		5-Ind, Prof, Disc, Know & Skills	None
10. Demonstrate competence in performing physical therapy interventions related to rehabilitation of the patient with cardiopulmonary and/or integumentary pathology, including: a. Airway Clearance Techniques b. Application of Devices and Equipment c. Functional training d. Biophysical agents e. Motor function training f. Therapeutic exercise g. Wound management	PSLO #6 Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care established by the physical therapist.		5-Ind, Prof, Disc, Know Skills	None
11. Demonstrate competence in performing data collection techniques related to management of the patient with cardiopulmonary and integumentary pathology, including: a. Aerobic Capacity & Endurance b. Anthropometrical Characteristics c. Mental Functions d. Assistive Technology e. Gait, Locomotion, & Balance f. Integumentary Integrity g. Joint Integrity & Mobility h. Muscle Performance i. Pain j. Posture k. Self-Care and Civic, Community, Domestic,	PSLO #7 Demonstrate competency in performing components of data collection skills essential for carrying out the plan of care.		5-Ind, Prof, Disc, Know Skills	None

Education, Social, and Work Life i. Ventilation, Respiration, and Circulation				
12. Maintain safe working environment and assures safety of patient and self during all interactions.	PSLO #4 Demonstrate safe practice in all situations.		5-Ind,Prof, Disc, Know Skills	None
13. Demonstrate the ability to adjust components of intervention as necessary and within the guidelines of the plan of care based on patient response during case scenario implementation.	PSLO #8 Demonstrate sound clinical problem solving in the provision of physical therapy services.		2-Crit Think	PS

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

\*Include program objectives if applicable. Please consult with Program Coordinator

J. **APPLIED LEARNING COMPONENT:** Yes  No

If YES, select one or more of the following categories:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Classroom/Lab | <input type="checkbox"/> Civic Engagement              |
| <input type="checkbox"/> Internship               | <input type="checkbox"/> Creative Works/Senior Project |
| <input type="checkbox"/> Clinical Placement       | <input type="checkbox"/> Research                      |
| <input type="checkbox"/> Practicum                | <input type="checkbox"/> Entrepreneurship              |
| <input type="checkbox"/> Service Learning         | (program, class, project)                              |
| <input type="checkbox"/> Community Service        |  |

K. **TEXTS:**

O'Sullivan, S.B., Schmitz, T.J., Fulk, G.D. (2019) Physical Rehabilitation, Philadelphia: F.A.Davis.

Cameron, M.H. (2018) Physical Agents in Rehabilitation, St. Louis: Elsevier.

L. **REFERENCES:**

Kisner, C and Colby, L.A., (2018) Therapeutic Exercise: Foundations and Techniques, Philadelphia: F.A. Davis.

Goodman, C (2012) Pathology for the Physical Therapist Assistant, St. Louis: Elsevier.

Kisner, C and Colby, L.A., (2007) Therapeutic Exercise: Foundations and Techniques, Philadelphia: F.A. Davis.

Sussman, C and Bates-Jensen, B (2012) Wound Care: A Collaborative Practice Manual for Health Professionals, Baltimore: Lippincott WW.

M. **EQUIPMENT:** None  Needed: Physical therapy lab equipment and supplies

N. **GRADING METHOD:** A-F as per PTA program standards

The grading scale for the Physical Therapist Assistant program is as follows:

A	= 90-100	C	= 70-74
B+	= 85-89	D+	= 65-69
B	= 80-84	D	= 60-64
C+	= 75-79	F	= below 60

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

Written Exams

Case Exam

Lab Competencies

Lab Practical

Quizzes

Homework Assignments

**P. DETAILED COURSE OUTLINE:**

I. Cardiopulmonary Pathologies

- A. Cardiopulmonary A&P
- B. Cardiac Pathologies related to O<sub>2</sub> 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

II. Diabetes and Peripheral Vascular Disease

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

III. Amputations, Prosthetics, Orthotics

- A. Lower extremity amputation
- B. Transtibial Prosthetics
- C. Transfemoral Prosthetics
- D. Lower Extremity Orthotics

IV. Integumentary Pathologies

- A. Wound Healing
- B. Burns
- C. Lymphedema

**Q. LABORATORY OUTLINE: None  Yes**

I. Cardiopulmonary

- A. Cardiopulmonary Assessment Techniques
- B. Airway Clearance Techniques
- C. Tubes, Lines, and Wires
- D. Cardiopulmonary Rehabilitation

II. Amputee Rehab

- A. Acute Amputee Rehab
- B. Pre-Prosthetic Training
- C. Prosthetic Training

III. Integumentary

- A. Wound Care
- B. Burn Rehab
- C. Lymphedema Management