

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



MASTER SYLLABUS

PHTA 103 – MUSCULOSKELETAL PATHOLOGIES

CIP Code: 51.0806

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Updated by: Deborah Molnar**

**School of Science, Health, & Professional Studies
Physical Therapist Assistant
Spring 2026**

A. TITLE: Musculoskeletal Pathologies

B. COURSE NUMBER: PHTA 103

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	x

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	
Spring	x
Fall and Spring	

G. COURSE DESCRIPTION: In this course students study specific musculoskeletal pathologies across the life span. Students learn their role in assisting the physical therapist with management of an orthopedic based patient population in relation to stages of tissue healing. They will learn a variety of therapeutic exercise and soft tissue techniques for the extremities and the spine to address impairments and activity limitations. Students will develop clinical reasoning skills using the problem-solving algorithm framework to carry out the physical therapy plan of care in the context of musculoskeletal case-based scenarios. Documentation and billing practices will be incorporated into case assignments in preparation for clinical practice.

- H. **PRE-REQUISITES:** PHTA 100, PHTA 101, BIOL 217, or permission of instructor.
CO-REQUISITES: N/A

I. **STUDENT LEARNING OUTCOMES:**

Course Student Learning Outcome [SLO]	Program Student Learning Outcome [PSLO]	GER	ISLO & Subsets
1. Describe mechanism of injury, clinical presentation, medical management, and rehabilitation of common musculoskeletal pathologies of the: lower extremity, upper extremity, spine	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
2. Demonstrate comprehension of the physical therapy plan of care through case scenario implementation for patients with musculoskeletal pathology.	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
3. Recognize characteristics and rehabilitation management of various degenerative/systemic conditions affecting the musculoskeletal system.	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
4. Appropriately adjust therapeutic exercise according to patient verbal or non-verbal response during musculoskeletal case scenario implementation.	PSLO #6 Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills

	established by the physical therapist.		
5. Produce accurate, technically correct, and legible documentation related to a musculoskeletal rehabilitation session.	PSLO #10 Complete accurate and timely documentation in accordance with regulatory guidelines to support the delivery of physical therapy services.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills
6. Recognize changes in the patient's 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.		ISLO #2 Critical Thinking <i>Problem Solving [PS]</i>
7. Provide effective home exercise program education 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.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills
8. 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.		ISLO 1 Communication Skills <i>Oral (O)</i>
9. Appropriately identify components of the ICF in relation to a musculoskeletal patient case scenario.	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

	long term goals and intended outcomes.		
10. Demonstrate competency in performing select physical therapy interventions related to rehabilitation of patients with musculoskeletal pathology, including therapeutic exercise, manual therapy, and soft tissue techniques.	PSLO #6 Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care established by the physical therapist.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills
11. Demonstrate competence in data collection as related to implementation of interventions related to musculoskeletal rehabilitation.	PSLO #7 Demonstrate competency in performing components of data collection skills essential for carrying out the plan of care.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills
12. Maintain safety of patient and self in all situations.	PSLO #4 Demonstrate safe practice in all situations.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills
13. Accurately identify treatment codes for billing purposes following case scenario implementation.	PSLO #13 Participate in practice management functions within a physical therapy service, including billing and organizational planning.		ISLO 5 Industry, Professional, Discipline Specific Knowledge and Skills

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

J. APPLIED LEARNING COMPONENT:

Yes	x
No	

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

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

K. TEXTS: Kisner, C and Colby, L.A., (2023) Therapeutic Exercise: Foundations and Techniques, Philadelphia: F.A. Davis.

L. REFERENCES:
Manske R.C., (2022) Fundamental Orthopedic Management for the Physical Therapist Assistant, St Louis: Mosby.
Lippert, L., (2023) Clinical Kinesiology and Anatomy, Philadelphia: F.A. Davis.

M. EQUIPMENT: 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
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, Lab Competencies, Lab Practical, Quizzes, Case-Based Homework Assignments

P. DETAILED COURSE OUTLINE:

I. Introduction to Musculoskeletal Management
A. ICF Model for the Musculoskeletal Patient
B. Musculoskeletal Imaging
C. Musculoskeletal Pharmacology

II. Degenerative Skeletal Conditions
A. Osteoarthritis
B. Osteoporosis

III. Lower Extremity Pathologies
A. Hip Pathologies
B. Knee Pathologies
C. Ankle/Foot Pathologies

IV. Upper Extremity Pathologies

- A. Shoulder Pathologies
- B. Elbow/Forearm Pathologies
- C. Wrist/Hand Pathologies

V. Spinal Pathologies

- A. Postural Dysfunction
- B. Disc Pathology
- C. Other Spinal Pathologies

Q. LABORATORY OUTLINE:

I. Introduction

- A. Exercise Instruction/HEP
- B. Joint Mobilization
- C. Endurance Training

II. Lower Extremity

- A. Manual Techniques
- B. Flexibility Exercise
- C. Resistance Exercise

III. Upper Extremity

- A. Manual Techniques
- B. Flexibility Exercise
- C. Resistance Exercise

IV. Spine

- A. Postural Awareness Training
- B. Manual Techniques
- C. Flexibility Exercise
- D. Resistance/Stabilization Exercise