A. **TITLE:** Musculoskeletal Pathologies

B. **COURSE NUMBER:** PHTA 103

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 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 apply a variety of exercise techniques when give the physical therapy plan of care and goals/expected outcomes. Focus is on providing quality instruction and education to the patient and/or caregiver throughout the course in the context of musculoskeletal case-based scenarios.

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

PHTA 100, PHTA 101, BIOL 217, 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:

<table>
<thead>
<tr>
<th>Course Student Learning Outcome [SLO]</th>
<th>Program Student Learning Outcome [PSLO]</th>
<th>GER [If Applicable]</th>
<th>ISLO &amp; SUBSETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe mechanism of injury, clinical presentation, medical management, and rehabilitation of common musculoskeletal pathologies of the: lower extremity, upper extremity, spine</td>
<td>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.</td>
<td>5-Ind, Prof, Disc, Know Skills ISLO ISLO</td>
<td>None Subsets Subsets Subsets</td>
</tr>
<tr>
<td>2. Demonstrate comprehension of the physical therapy plan of care through case scenario implementation for patients with musculoskeletal pathology.</td>
<td>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.</td>
<td>5-Ind, Prof, Disc, Know Skills ISLO ISLO</td>
<td>None Subsets Subsets Subsets</td>
</tr>
<tr>
<td>3. Recognize characteristics and rehabilitation management of various degenerative/systemic conditions affecting the musculoskeletal system.</td>
<td>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.</td>
<td>5-Ind, Prof, Disc, Know Skills ISLO ISLO</td>
<td>None Subsets Subsets Subsets</td>
</tr>
<tr>
<td>4. Appropriately adjust therapeutic exercise according to patient verbal or non-verbal response during musculoskeletal case scenario implementation.</td>
<td>PSLO #8 Demonstrate sound clinical problem solving in the provision of physical therapy services.</td>
<td>2-Crit Think ISLO ISLO</td>
<td>PS Subsets Subsets Subsets</td>
</tr>
<tr>
<td>5. Produce accurate, technically correct, and legible documentation related to a musculoskeletal rehabilitation session.</td>
<td>PSLO #10 Complete accurate and timely documentation in accordance with regulatory guidelines to support the delivery of physical therapy services.</td>
<td>5-Ind, Prof, Disc, Know Skills ISLO ISLO</td>
<td>None Subsets Subsets Subsets</td>
</tr>
<tr>
<td>6. Recognize individual and cultural differences and respond appropriately through case scenario implementation.</td>
<td>PSLO #2 Recognize individual and cultural differences and respond appropriately in all aspects of physical therapy services.</td>
<td>4-Soc Resp ISLO ISLO</td>
<td>JK Subsets Subsets Subsets</td>
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<td>7.</td>
<td>Recognize changes in the patient's status and reports this verbally or in documentation to physical therapist at the appropriate time in the treatment session.</td>
<td>PSLO #8</td>
<td>2-Crit Think</td>
</tr>
<tr>
<td></td>
<td>Demonstrate sound clinical problem solving in the provision of physical therapy services.</td>
<td></td>
<td>PS Subsets Subsets Subsets</td>
</tr>
<tr>
<td>8.</td>
<td>Create appropriate home exercise programs based on the physical therapy plan of care for the patient with musculoskeletal pathology.</td>
<td>PSLO #5</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
</tr>
<tr>
<td></td>
<td>Communicate an understanding of the plan of care developed by the physical therapist to achieve short and long term goals and intended outcomes.</td>
<td></td>
<td>PS Subsets Subsets Subsets Subsets</td>
</tr>
<tr>
<td>9.</td>
<td>Demonstrate effective communication skills while acting as a student PTA during lab competencies and practicals.</td>
<td>PSLO #1</td>
<td>1-Comm Skills</td>
</tr>
<tr>
<td></td>
<td>Communicate verbally and non-verbally with the patient, the physical therapist, health care delivery personnel, and others in an effective, appropriate, and capable manner.</td>
<td></td>
<td>PS Subsets Subsets Subsets</td>
</tr>
<tr>
<td>10.</td>
<td>Appropriately identify components of the ICF in relation to a musculoskeletal patient case scenario.</td>
<td>PSLO #5</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
</tr>
<tr>
<td></td>
<td>Communicate an understanding of the plan of care developed by the physical therapist to achieve short and long term goals and intended outcomes.</td>
<td></td>
<td>PS Subsets Subsets Subsets</td>
</tr>
<tr>
<td>11.</td>
<td>Find and summarize a peer reviewed research article related to a musculoskeletal clinical problem.</td>
<td>PSLO #11</td>
<td>1-Comm Skills 5-Found Skills</td>
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<td></td>
<td>Appropriately utilize evidence based resources in the provision of physical therapy services.</td>
<td></td>
<td>PS IM</td>
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<tr>
<td>12.</td>
<td>Demonstrate competency in performing select physical therapy interventions related to rehabilitation of the patient with musculoskeletal pathology, including:</td>
<td>PSLO #6</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
</tr>
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<td></td>
<td>a. Application of Devices and Equipment</td>
<td></td>
<td>PS</td>
</tr>
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<td></td>
<td>b. Functional Training</td>
<td></td>
<td>Subsets</td>
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<td></td>
<td>c. Motor Function Training</td>
<td></td>
<td>Subsets</td>
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<td></td>
<td>d. Therapeutic Exercise</td>
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<td>Subsets</td>
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<td></td>
<td>e. Patient/Client Education</td>
<td></td>
<td>Subsets</td>
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<tr>
<td>13.</td>
<td>Demonstrate competency in performing data collection techniques necessary for management of the patient with musculoskeletal pathology, during case scenario implementation, including components of:</td>
<td>PSLO #7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
</tr>
<tr>
<td></td>
<td>a. Aerobic capacity and endurance</td>
<td></td>
<td>PS</td>
</tr>
<tr>
<td></td>
<td>b. Gait, locomotion, and balance</td>
<td></td>
<td>Subsets</td>
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<tr>
<td></td>
<td>Demonstrate competency in performing components of data collection skills essential for carrying out the plan of care.</td>
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<td>PS Subsets Subsets Subsets</td>
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<td>14.</td>
<td>Maintain safety of patient and self in all situations.</td>
<td>PSLO #4</td>
<td>Demonstrate safe practice in all situations.</td>
</tr>
<tr>
<td>15.</td>
<td>Demonstrate effective interviewing skills to determine patient status at the start of a treatment session.</td>
<td>PSLO #7</td>
<td>Demonstrate competency in performing components of data collection skills essential for carrying out the plan of care.</td>
</tr>
<tr>
<td>16.</td>
<td>Describe considerations for discontinuation of episode of care planning related to a musculoskeletal patient case scenario.</td>
<td>PSLO #5</td>
<td>Communicate an understanding of the plan of care developed by the physical therapist to achieve short and long term goals and intended outcomes.</td>
</tr>
<tr>
<td>17.</td>
<td>Accurately identify treatment codes for billing purposes following case scenario implementation.</td>
<td>PSLO #13</td>
<td>Participate in practice management functions within a physical therapy service, including billing and organizational planning.</td>
</tr>
</tbody>
</table>

**KEY Institutional Student Learning Outcomes [ISLO 1 - 5]**

<table>
<thead>
<tr>
<th>ISLO #</th>
<th>ISLO &amp; Subsets</th>
</tr>
</thead>
</table>
| 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 |

*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:

- Classroom/Lab
- Internship
- Clinical Placement
- Practicum
- Service Learning
- Community Service
- Civic Engagement
- Creative Works/Senior Project
- Research
- Entrepreneurship (program, class, project)

K. **TEXTS:**


L. **REFERENCES:**


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

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

- Written Exams
- Lab Competencies
- Lab Practical
- Quizzes
- Case Based Homework Assignments
- Evidence Based Practice Assignment
- Service Learning
P. DETAILED COURSE OUTLINE:

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

II. Degenerative Conditions
   A. Osteoarthritis
   B. Rheumatoid Arthritis
   C. Osteoporosis
   D. Fibromyalgia

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: None □ Yes ☑

I. Introduction
   A. Therapeutic Exercise Fundamentals
   B. Joint Mobilization
   C. Endurance Training
   D. Osteoporosis Management

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