Course Number: PTA 107
Course Title: Therapeutic Measurement
Credits: 2

Hours:
Lecture/Lab/Other: 1/1/0

Co- or Pre-requisite:
Pre-requisite = PTA 105, BIO 104 LEC & LAB with a grade of C+ or higher completed within the past 5 years
Co-requisite = PTA 222 (clinical orthopedics)

Implementation:
Semester & Year: Fall 2023

Catalog description:
Addresses bony landmarks, muscle length, measurement of joint range of motion and muscle strength. Medical documentation is introduced. Students develop their skills through practice with each other. Competencies evaluated throughout the course.

General Education Category: Not GenEd

Course coordinator: (Holly Kaiser, 570-3478, KaiserH@mccc.edu)

Required texts & Other materials:
These are recommended, not required:

ISBN: 978-0-9777006-7-7

GONI RehabLearning App from the App Store

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 1. Written and Oral Communication in English. Students will communicate effectively in both speech and writing.


Institutional Learning Goal 10. Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.
Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for PTA 107 (PLO)

Cognitive/Knowledge
The learner will be able to successfully:

C1. Knows specific facts (Remember)
   C1.1 Identify prime movers for each motion within the body
   C1.2 Identify common substitution and compensation patterns seen during goniometry and manual muscle testing
   C1.3 Identify the components of measurements that need to be documented in a patient chart
   C1.4 Recall commonly accepted “normal” values
   C1.5 Describe the normal end feel during passive range of motion for each joint
   C1.6 Identify which anatomical plane each motion of the body occurs in, while in anatomic position and testing positions
   C1.7 Identify alignment of the fulcrum, stationary arm and moving arm of a goniometer using bony landmarks for all motions of the body
   C1.8 Identify proper stabilization, clinician hand placement, and patient instruction for all motions for goniometry and manual muscle testing
   C1.9 Identify recommended (standard) patient positions for all motions for both goniometry and manual muscle testing
   C1.10 Recognize and define medical and descriptive terminology
   C1.11 Select the most appropriate goniometer size for each joint
   C1.12 Describe the components and proper use of various measurement tools
   C1.13 Recognize bony landmarks used during goniometry and describe how to identify and palpate them
   C1.14 Identify proper patient care sequence

C2. Comprehends basic concepts and principles (Understand)
   C2.1 Describe how the role of the PTA differs from that of the PT in relation to gathering objective data
   C2.2 Describe types of muscle contractions (isometric, concentric, eccentric) responsible for joint movements
   C2.3 Contrast and compare various measurement tools
   C2.4 Describe the difference between active, passive, and active assisted range of motion
   C2.5 Differentiate between the advantages & disadvantages of various measurement techniques for goniometry
   C2.6 Differentiate between gravity assisted, against gravity and gravity eliminated testing positions for manual muscle testing

C3. Applies basic concepts and principles to new situations (Apply)
   C3.1 In small and large group discussions, apply the principles of goniometry to the joints of the hand
   C3.2 Apply basic principles of stretching and strengthening to muscles throughout the body
   C3.3 Distinguish between positions that measure muscle length and those which measure joint range of motion
   C3.4 Apply the principles of manual muscle testing to determine muscle grades using both numerical and quantitative scores
   C3.5 During classroom activities, apply the principles of manual muscle testing to determine appropriate placement for resistance for various muscles

C4. Demonstrates the ability to analyze procedures to determine if organizational principles are being followed (Analyze)
C4.1 During instructor-led lab discussions, question standard manual muscle testing procedures to determine if they follow the principles and rules of manual muscle testing

C5. Applies thinking skills when judging data and performance (Evaluate)
C5.1 Judge the adequacy with which changes in standard positions have been supported by data
C5.2 Interpret a research article related to goniometry or manual muscle testing and its impact on the testing procedure or interpretation of the testing procedure
C5.3 Assess and rate the performance of a classmate in a mock practical examination and compare observations with classmates and instructor

C6. Uses knowledge to create new methods necessary to gather data (Create)
C6.1 Arrange a testing sequence for goniometry and manual muscle testing to minimize positional changes for the subject
C6.2 In small groups during class, generate possible solutions for patients who are unable to assume a standard testing position
C6.3 Generate a new procedure for MMT utilizing the principles of MMT in a lab session

Psychomotor
The learner will be able to successfully:

P1. Observe course skills performed by the instructor (Observe)
P1.1 Observe the instructor demonstrate goniometry and manual muscle testing for all joint motions during lab activities
P1.2 Observe and review examples of proper documentation examples

P2. Copy data collection skills during lab activities, with feedback provided by the course instructor (Imitate)
P2.1 Perform hand hygiene skills including hand sanitizing rub and hand wash during lab
P2.2 Perform goniometric measurement of joint range of motion for all joints during lab, as outlined by the skill demonstration list and critical safety indicators
P2.3 Perform manual muscle tests for all grades for each joint motion correctly during lab, as outlined by the skill demonstration list and critical safety indicators
P2.4 Communicate effectively and professionally with subjects during labs, case scenarios, competency tests and practical examinations

P3. Perform skills repeatedly to make the movements more automatic and smooth (Practice)
P3.1 Repeat correct hand hygiene techniques with enough frequency to demonstrate competence during competency testing and practical examinations
P3.2 Repeat correct goniometry and manual muscle testing sequences (as outlined by the skill demonstration list and critical safety indicators) with enough frequency to demonstrate competence during competency testing and practical examinations
P3.3 Document the subjective and objective portions of a SOAP note
P3.4 Demonstrate use of precision of medical language on written quizzes and during supervised lab sessions
P3.5 Repeat the program approved introduction until it is smooth and automatic
P3.6 Ask subjective questions that are pertinent to the situation, while avoiding leading questions

P4. Make adjustments in the performance of goniometry and manual muscle testing in order to perfect these skills (Adapt)
P4.1 Maintain a safe and competent hand wash process when other clinicians are sharing the same resources
P4.2 Properly locate and palpate random bony landmarks used in goniometry during competency testing
P4.3 Use a goniometer to measure random active joint range of motion of a classmate or instructor during competency testing, as outlined by the skill demonstration list and critical safety indicators
P4.4 Perform random manual muscle tests to measure a classmate or instructor’s actual muscle strength during competency testing, as outlined by the skill demonstration list and critical safety indicators
P4.5 Prepare and maintain safe and effective treatment areas
P4.6 Perform selected data collection techniques as directed by the supervising physical therapist during a practical examination, as outlined by the skill demonstration list and critical safety indicators
P4.7 During lab activities and competency tests, identify which CPT Code(s) you would bill for and the rationale for choosing the code(s)
P4.8 During lab scenarios, competency tests and practical examinations, practice within the scope of practice of a PTA in New Jersey
P4.9 Respond effectively to subject and/or environmental emergencies that occur in the lab during instruction, practice and testing

Affective
The learner will be able to successfully:

A1. Receive Phenomenon
   A1.1 Listen to others with respect
   A1.2 Receive feedback professionally
   A1.3 Attend class consistently
   A1.4 Arrive to all classes and clinicals prior to the start time
A2. Respond to Phenomenon
   A2.1 Participate in class
   A2.2 Know the safety rules and practice them
   A2.3 Respond to feedback in a professional manner
   A2.4 Prepare for lectures, labs and clinicals ahead of time
A3. Value
   A3.1 Demonstrate sensitivity to individual and cultural differences
   A3.2 Show an ability to solve problems
   A3.3 Inform PTAP faculty of matters one feels strongly about
A4. Organize
   A4.1 Recognize the need for balance between educational and personal priorities
   A4.2 Accept professional ethical standards, as evidenced by following them
   A4.3 Prioritize times effectively to meet educational and personal needs
   A4.4 Complete and submit all assignments, assessments, and required documents on time
A5. Internalize
   A5.1 Show self-reliance when working independently
   A5.2 Cooperate in group activities
   A5.3 Revise judgments and changes behavior in light of new evidence and feedback
   A5.4 Value people for who they are, not how they look
   A5.5 Identify sources of stress and implement effective coping behaviors
   A5.6 Demonstrate a commitment to the physical therapy profession

Evaluation of student learning:

Grading

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<th>Learning Domain</th>
<th>Assessment</th>
<th>% of course grade</th>
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<td>1 Practical Examination</td>
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