Course Title: PTA Procedures IV: Therapeutic Exercise Lab  
Prefix and Course Number: PTA 270

Course Learning Objectives

1. Range of motion
   a. Passive range of motion
   b. Active range of motion
   c. Active assistive range of motion
   d. Self-range of motion
   e. Mechanical continuous passive range of motion

2. Personal Exercise Program
   a. Assessment
   b. Endurance
   c. Weight loss
   d. Flexibility
   e. Strength

3. Exercise Equipment
   a. Maintenance
   b. Cost
   c. Operating procedures
   d. Application

4. Stretching
   a. Passive
   b. Active
   c. Dynamic

5. Proprioceptive neuromuscular facilitation
   a. Upper extremity
   b. Lower extremity
   c. Contract/relax
   d. Contract/relax/contract
   e. Hold/relax
   f. Rhythmic stabilization
   g. Alternating isometrics
   h. Reciprocal inhibition

6. Resistance Training and strengthening
   a. Machines
   b. Weights
   c. Bands
   d. Manual
   e. Therapy balls
   f. Foam rolls
   g. Bodyweight

7. Exercise Program Implementation
   a. Orthopedic conditions
      1. Extremities
      2. Spine

8. Neurological conditions
9. Balance, coordination, proprioception
10. Pulmonary conditions
   a. Breathing facilitation
   b. Cough facilitation
11. Cardiac conditions
12. Post-surgical conditions
13. Biofeedback, muscle re-education
14. Aerobic conditions - target heart rate
15. Respiratory conditions
16. Posture
17. Pelvic floor dysfunction
18. Relaxation techniques
19. Sport/vocation specific
   a. Joint mobilization/Muscle energy techniques
      1. Upper extremity
      2. Lower extremity
      3. SI joint
   b. Kinesiotaping
   c. Documentation
      1. Treatment parameters
      2. Response to treatment
      3. Home exercise program
   d. Range of motion devices
      1. CPM
      2. Dynamic splints

**Student Learning Outcomes**

**By the end of this course, a student should be able to:**

1. Adhere to legal practice standards, including all federal, state, and institutional regulations related to pt/client care and fiscal management.
2. And consistently perform lab activities with, proper body mechanics, and correct handling skills. (7D4)
3. Effectively educate others using teaching methods that are commensurate with the needs of the patient, caregiver or healthcare personnel. (7D12) (7D24g)
4. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist utilizing underlying physiological principles and awareness of indications, contraindications, diagnosis and common exercise errors. Interventions include therapeutic exercise for the following: (7D19,) (7D23h,) (7D24k) • Posture • Flexibility/Stretching • Range of motion • Strength • Endurance • Wellness • Prevention • Relaxation
5. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist utilizing underlying physiological principles and awareness of indications, contraindications, and diagnosis. Interventions include manual therapy utilizing the following techniques: (7D19,) (7D23e) • PNF patterns for the upper and lower extremity in a variety of positions • Joint mobilization techniques Grade I and II for the extremities • Selected Mobilization with movement techniques for the upper and lower extremities • Passive ROM and passive stretching • Muscle Energy techniques for pelvic obliquities
6. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist utilizing underlying physiological principles and awareness of indications, contraindications, and diagnosis
interventions include utilizing motor function training for balance and gait. (7D19) (7D23f), (7D23h)

7. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist utilizing underlying physiological principles and awareness of indications, contraindications, and diagnosis interventions include therapeutic exercise safely utilizing weights, resistive bands, putty, pulleys, balls, foam rolls and other available equipment. (7D19) (7D23h)

8. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist utilizing underlying physiological principles and awareness of indications, contraindications, and diagnosis interventions include therapeutic exercise utilizing assistive, resistive, open and closed kinetic chain and functional techniques (7D19) (7D23h)

9. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist. Interventions include application of CPM and dynamic splints to improve range of motion (7D23b) (7D24d).

10. Design, perform, modify, record a personal exercise program that includes activities to support personal wellness.

11. Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist. Interventions include airway clearance techniques: breathing exercises, coughing techniques and secretion mobilization. (7D23a)

12. Identify and integrate appropriate evidence based resources to support clinical decision making for progression of the patient within the plan of care. (7D11).

13. Demonstrate competence in performing components of data collection skills essential for carrying out the plan of care by administering appropriate tests and measures (before, during and after interventions) for aerobic capacity and endurance (7D23a)

14. Complete accurate documentation that follows guidelines and specific documentation formats required by state practice acts, the practice setting, and other regulatory agencies. (7D25)

15. Contribute to efforts to increase patient and healthcare provider safety by utilizing proper body mechanics and safe handling techniques with all interventions (7D27).