

SIM 480 Therapeutic Exercise

Risk Management and Injury Prevention

- 2-1: The student will demonstrate the ability to perform and evaluate the results of the following tests:
- b. strength (repetition) testing
 - c. agility tests
 - d. speed tests
- 5-4: The student will perform isometric tests for the following parts of the body:
- a. ankle
 - b. foot/toes
 - c. knee
 - d. hip
 - e. trunk/torso
 - f. shoulder
 - g. elbow
 - h. wrist
 - i. hand/fingers
- 5-5: The student will perform the following tests:
- a. upper body strength test
 - b. lower body strength test
 - c. upper body power test
 - d. lower body power test
 - e. upper body muscular endurance test
 - f. lower body muscular endurance test

Therapeutic Modalities

- 2-T1: The student will demonstrate the ability to select the appropriate parameters for and then prepare and apply the following:
- a. mechanical traction
 - b. manual traction
 - c. positional traction

Therapeutic Exercise

- 1-1: Exercise to improve the range of motion of the upper extremity, lower extremity, trunk, and cervical spine. The student will demonstrate the ability to instruct the following exercises:
- a. passive range-of-motion exercises
 - b. active range-of-motion exercises
 - c. active-assisted range-of-motion exercises
 - d. joint mobilization
 - e. self-mobilizations
- 1-2: Exercise to improve muscular strength. The student will demonstrate the ability to instruct exercises for the following parts of the body using isometric and progressive resistance techniques:
- a. lower extremity
 - b. upper extremity
 - c. cervical spine

d. trunk and torso

1-3U: Exercise to improve muscular endurance. The student will demonstrate the ability to instruct the following exercise modalities:

Upper body

- a. aquatic
- b. UBE/stationary bicycle
- c. physioballs

1-3L: Exercise to improve muscular endurance. The student will demonstrate the ability to instruct the following exercise modalities:

Lower Body

- a. aquatic
- b. stationary bicycle
- c. stair
- d. physioballs
- e. treadmill

1-4U: Exercise to improve muscular speed. The student will demonstrate the ability to instruct the following activities:

Upper body

- a. reaction drills

1-4L: Exercise to improve muscular speed. The student will demonstrate the ability to instruct the following activities:

Lower Body

- a. reaction drills
- b. sprint work
- c. Fartlek training

1-5: Exercise to improve muscular power. The student will demonstrate the ability to instruct plyometric exercises for the upper and lower extremities.

1-6U: Exercise to improve neuromuscular control and coordination. The student will demonstrate the ability to instruct the following activities:

Upper body

- a. PNF patterns
- b. rhythmic stabilization
- c. double- and single-arm balancing
- d. wobble board or balance apparatus
- e. weighted-ball rebounding or toss

1-6L: Exercise to improve neuromuscular control and coordination. The student will demonstrate the ability to instruct the following activities:

Lower Body

- a. PNF patterns

- b. proprioception board or balance apparatus
- c. incline board
- d. Single-leg balancing

1-6N: Exercise to improve neuromuscular control and coordination. The student will demonstrate the ability to instruct the following activities:

Neck

- a. stabilization
- b. postural correction

1-6T: Exercise to improve neuromuscular control and coordination. The student will demonstrate the ability to instruct the following activities:

Trunk

- a. stabilization
- b. postural correction

1-7U: Exercise to improve agility. The student will demonstrate the ability to instruct the following activities:

Upper body

- a. throwing
- b. catching

1-7L: Exercise to improve agility. The student will demonstrate the ability to instruct the following activities:

Lower Body

- a. Carioca
- b. cross-over
- c. figure eight (8)

1-8U: Exercise to improve cardiorespiratory endurance. The student will demonstrate the ability to instruct the following activities:

Upper body

- a. upper-body ergometer
- b. stationary bicycle
- c. aquatic
- d. stair climber

1-8L: Exercise to improve cardiorespiratory endurance. The student will demonstrate the ability to instruct the following activities:

Lower Body

- a. bicycle ergometer
- b. treadmill
- c. stair climber
- d. aquatic

- 1-9: The student will demonstrate the ability to assess joint end point and to select and perform appropriate joint mobilization techniques for the appendicular and axial skeleton, including the following:
- a. long-axis distraction
 - b. appropriate glides (e.g., anterior/posterior, superior/inferior)