

## **SIM 271 Clinical Experience in Athletic Training II**

### **Risk Management and Injury Prevention**

- 5-1: The student will demonstrate the ability to establish repetition maximum tests.
- 5-2: The student will demonstrate the ability to perform an isokinetic test for the knee and shoulder.
- 5-3: The student will demonstrate the ability to interpret data obtained from isokinetic testing and to use this information to determine appropriate follow-up care.
- 6-1: The student will select range-of-motion exercises and activities for all major muscle groups and their associated joints and instruct a client to perform these exercises. The exercises must include the following body regions and joints:
- |                               |                   |
|-------------------------------|-------------------|
| a. cervical region            | g. hip and pelvis |
| b. shoulder: joint and girdle | h. knee           |
| c. elbow                      | i. leg            |
| d. wrist                      | j. ankle          |
| e. hand and fingers           | k. foot and toes  |
| f. lumbar region              |                   |
- 7-1: The student will demonstrate the proper lifting technique for the following exercises:
- |                   |                        |
|-------------------|------------------------|
| a. parallel squat | g. arm curl            |
| b. heel raises    | h. triceps extension   |
| c. power clean    | i. knee curl (flexion) |
| d. bench press    | j. knee extension      |
| e. shoulder press | k. leg press           |
| f. dead lift      |                        |
- 7-2: The student will demonstrate the proper spotting technique for the following exercises:
- |                   |                |
|-------------------|----------------|
| a. parallel squat | d. bench press |
| b. shoulder press | e. power clean |
| c. dead lift      |                |

### **Therapeutic Modalities**

- 1-2: The student will perform a physical examination and interview to identify the indications, contraindications, and precautions to various treatment protocols.
- 2-2: The student will demonstrate the ability to select the appropriate parameters for and then prepare and apply the following:
- |                                 |                  |
|---------------------------------|------------------|
| a. cold whirlpool treatment     | e. ice immersion |
| b. controlled cold therapy unit | f. ice massage   |

- c. ice pack
- d. vapo-coolant spray
- g. cryokinetics

2-2: The student will demonstrate the ability to select the appropriate parameters for and then prepare and apply the following:

- a. moist heat pack
- b. paraffin treatment
- c. contrast bath
- d. warm whirlpool treatment

2-2: The student will demonstrate the ability to select the appropriate parameters for and then prepare and apply the following:

- a. sensory-level pain control treatment
- b. noxious-level pain control treatment
- c. motor-level pain control treatment
- d. muscle re-education treatment
- e. muscle pumping treatment
- f. muscle atrophy retardation treatment
- g. acute edema treatment
- h. muscle splinting/spasm treatment
- i. iontophoresis treatment

2-2: 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

2-2: The student will demonstrate the ability to select the appropriate parameters for and then prepare and apply intermittent compression to the upper and lower extremities.

2-2: The student will demonstrate the ability to prepare and apply a massage treatment.

2-2: The student will demonstrate the ability to properly perform the following therapeutic massage strokes:

- a. effleurage
- b. petrissage
- c. friction (circular, transverse)
- d. tapotement
- e. vibration
- f. myofascial release techniques

3-2: The student will demonstrate the ability to select the appropriate parameters for and then prepare and apply the following:

- a. thermal ultrasound treatment
- b. non-thermal ultrasound treatment
- c. combination electrical-stimulation/ultrasound treatment
- d. phonophoresis treatment
- e. indirect application of ultrasound treatment (underwater, bladder)

## **Therapeutic Exercise**

- 1-2: 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
- 1-2: 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
- 1-2: 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
- 1-2: Exercise to improve muscular speed. The student will demonstrate the ability to instruct the following activities:
- Upper body
- a. reaction drills
- 1-2: 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

1-2: Exercise to improve muscular power. The student will demonstrate the ability to instruct plyometric exercises for the upper and lower extremities.

1-2: 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

1-2: 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

1-2: Exercise to improve neuromuscular control and coordination. The student will demonstrate the ability to instruct the following activities:

Neck

- a. stabilization
- b. postural correction

1-2: Exercise to improve neuromuscular control and coordination. The student will demonstrate the ability to instruct the following activities:

Trunk

- a. stabilization
- b. postural correction

1-2: Exercise to improve agility. The student will demonstrate the ability to instruct the following activities:

Upper body

- a. throwing
- b. catching

1-2: 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)

- 1-2: 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
- 1-2: 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
- 1-2: 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)
- 1-2: The student will demonstrate the ability to instruct and perform exercises to improve activity-specific skills (running, striking, throwing, catching, swimming, biking, climbing, etc.).
- 2-2: The student will set-up and apply the following types of electrical stimulation units:
- a. monophasic stimulator (e.g., high volt stimulation)
  - b. biphasic stimulator (e.g., Transcutaneous Electrical Nerve Stimulation [TENS], Neuromuscular Electrical Stimulation [NMES])
  - c. direct current (e.g., iontophoresis)
  - d. alternating current (e.g., interferential, NMES)
  - e. multifunction electrical stimulation devices

### **Health Care Administration**

- 5-2: The student will demonstrate the ability to prepare and interpret sample design for scientific research.
1. The student will interpret the following basic literature:
    - a. case study
    - b. outcome measurement, including statistical interpretation
    - c. literature review