



New for 2016-2017

Test questions and appropriate skills have been aligned to the new 10th edition of Essentials of Athletic Injury Management by William Prentice.

Purpose: To provide the HOSA member with an opportunity to develop and demonstrate knowledge and skills in the area of sports medicine.

Description This event will consist of two rounds of competition. Round One will be a written, multiple choice test. Written test will measure knowledge and understanding at the recall, application or analysis levels. Higher-order thinking skills will be incorporated as appropriate.

The top scoring competitors will advance to Round Two for the performance of selected skill (s) identified in a written scenario. The scenario will require the use of critical thinking skills. The performance will be timed and evaluated according to the event guidelines.

Dress Code: Competitors shall wear proper business attire or official HOSA uniform, or attire appropriate to the occupational area, during the orientation, written test and skill(s)– jeans and shorts are not acceptable. Bonus points will be awarded for [proper dress](#).

- Rules**
1. Competitors in this event must be active members of HOSA-Future Health Professionals, in good standing in the division in which they are registered to compete (Secondary or Postsecondary/Collegiate).
 2. Competitors must be familiar with and adhere to the "[General Rules and Regulations of the National HOSA Competitive Events Program \(GRR\)](#)."
 3. The test will consist of fifty (50) multiple choice items.

Round One: **Written Test Plan**

Infection Control and Vital Signs	8%
Careers, Athletic Trainer and Sports Medicine Team	8%
Physical Fitness Assessment	8%
Ethical and Legal Considerations	8%
Nutrition and Weight Management	16%
Physical Conditioning (Flexibility and weight training)	10%
Common Athletic Injuries.....	34%
Taping, Wrapping and Bracing	8%

4. All competitors shall report to the site of the event orientation at the time designated. The Round One Test will immediately follow the orientation. **No proxies will be allowed for the orientation.** No study materials are allowed in the room.

5. [Test Instructions](#): There will be a maximum of **60 minutes** to complete the test. There will be a verbal announcement when there are 15 minutes remaining for the test period.

NOTE: *States/regions may use a different process for testing, to include but not limited to pre-conference testing, online testing, and testing at a computer. Check with your Area/Region/State for the process you will be using.*

6. All official references are used in the development of the written test. The specific reference selected for each skill is listed in the Facilities, Equipment and Materials section of these guidelines.

- [Clover, Jim. *Sports Medicine Essentials*. Cengage Learning, Latest edition.](#)
- [Prentice, William E. *Essentials of Athletic Injury Management*. McGraw Hill, Latest edition.](#)

7. The test score from Round One will be used to qualify the competitor for the Round Two skills, and will be used as a part of the final score for the event.

8. For national competition, one, two or three skills will be selected and may be evaluated as stand-alone skills, or in combination. The skills approved for this event are:

Skill I: Flexibility Exercises

Skill II: Assessment

- A. Assess ROM and Strength Testing of Shoulder
- B. Assess ROM and Strength Testing of Ankle & Foot

Skill III: Taping

- A. Ankle
- B. Arch
- C. Elbow
- D. Thumb

9. The selected skill(s) for Round Two will be in the form of a written scenario and will be presented to the competitor at the start of the skill to be performed. One or more skills may be combined in the scenario. The scenario will be the same for each competitor and will include a challenging component that will require the competitor to apply critical thinking skills.
10. The scenario is a secret topic. Professional ethics demand that competitors DO NOT discuss or reveal the secret topic until after the event has concluded. Competitors who violate this ethical standard will be disqualified.
11. In case of a tie, the highest test score will be used to determine the rank.
12. Competitors must complete all steps of the skill listed in the guidelines even if the steps must be simulated/verbalized. Steps may NOT be simulated/verbalized when the equipment/materials are available.
13. The competitor must earn a score of 70% or higher on the combined skill(s) of the event (excluding the test) in order to be recognized as an award winner at the ILC.
14. The timing for the skill will begin when the scenario is presented to the competitor. Competitors will be stopped at the end of the time allowed for a selected skill(s).

Competitors Must Provide:

- Event guidelines (orientation)
- Pens and #2 lead pencils with eraser
- Watch with second hand (optional)
- Athletic tape of any size, color or type
- Elastic wrap (used for Skill III-C)
- Tape scissors or tape cutter
- Pad (heel and lace pad) coated with friction proofing material (used for Skill III-A)
- Underwrap of any size, color or type

Note: It is the competitor's responsibility to know what size and type(s) of tape is (are) needed for each taping skill, and to bring the appropriate materials to the event.

Required Personnel

1. One Event Manager per event
2. One Section Leader per section
3. One judge per skill selected per section (with expertise in the specific skill area)*
4. Proctors for testing
5. One-two event assistants per section
6. One-two patients as required by the scenario (per section)
7. Timekeepers (if necessary)
* One judge will role-play the athletic trainer.
8. One QA to provide quality assurance for the event by ensuring that the guidelines are followed and all event documents are complete.

Facilities, Equipment and Materials (Per Section)**General**

Checklist

- Clinical and/or laboratory stations for selected skills
- Holding rooms or areas for competitors (if off-site)
- Written scenario
- Patient and judge scripts as needed
- Pencils for judges
- Stopwatch(s)
- Rating sheets – one per judge per team/competitor
- Evaluation Forms – competitor, judge, and personnel
- #2 lead pencils with eraser to complete evaluations

Round One Written Test (Reference: All resources)

Checklist

- One test copy per competitor
- Scantron /answer forms

Round Two

Skill I Flexibility Exercises (Clover)

Checklist

- Scenario
- Exercise mat (Optional)
- Platform (4-8 inches high) needed for standing hamstring stretch
- Copies of resource pages for judges to review

Skill II Assess ROM and Strength Testing (Clover)

Checklist

- Patient
- Scenario
- Exam table or chair (For Skill II A)
- Exam table (For Skill II B)
- One or more athletes (depending on scenario)
- Copies of resource pages for judges to review

Skill III Taping (Prentice)

Checklist





- Patient
- Scenario
- Tape adherent spray
- Treatment table or chair(s)
- One or more athletes (depending on scenario)
- Copies of resource pages for judges to review

Sample Round One Test Questions

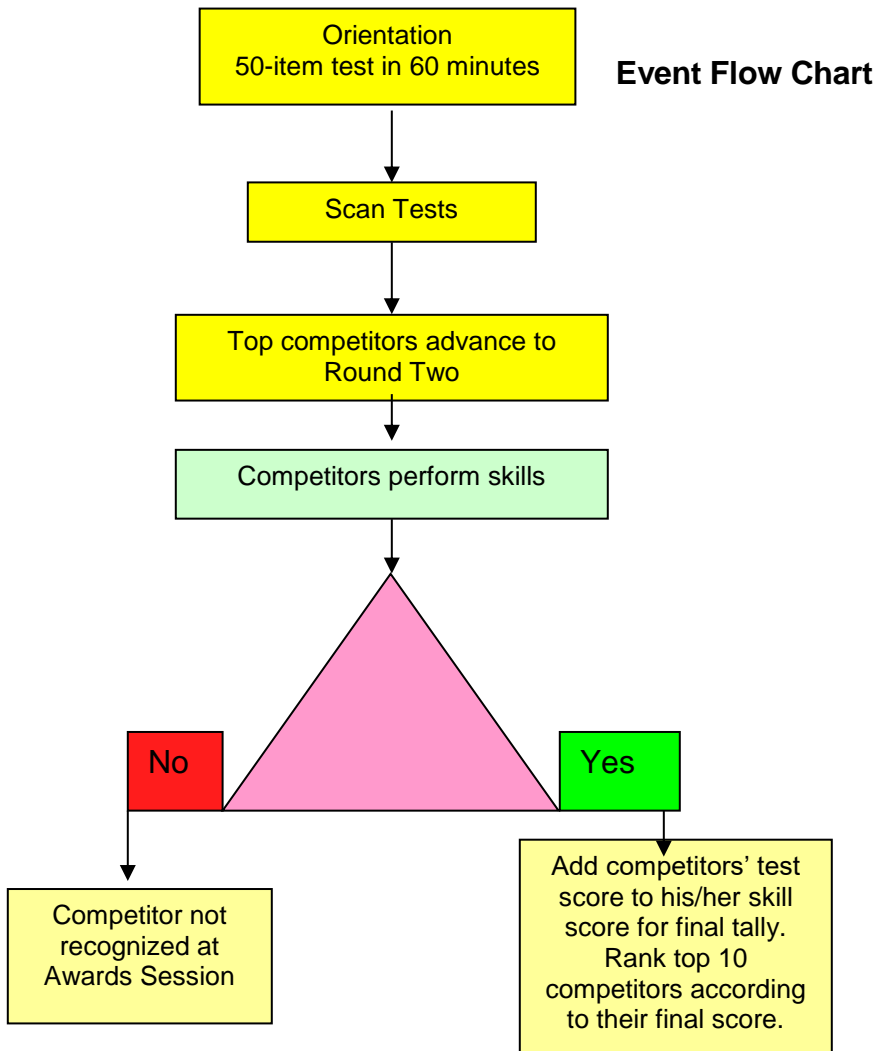
1. The professional who can advise the athlete on the psychological aspects of the rehabilitation process and how to cope with an injury is a:
 - A. sports physiologist.
 - B. sports neurologist.
 - C. sports psychologist.
 - D. sports massage therapist.

2. The vitamin needed to convert food into energy is:
 - A. ascorbic acid.
 - B. niacin.
 - C. riboflavin.
 - D. thiamine.

3. All of the following are symptoms of 'post-concussion syndrome' EXCEPT:
 - A. passiveness.
 - B. persistent headache.
 - C. impaired memory and lack of concentration.
 - D. irritability.

	The orientation includes an event element. Competitors must bring pencils.
	Round One scores are used to advance competitors to Round Two at the ILC.
	Includes a secret topic that may not be discussed or revealed to others until the event has concluded.
	Competitors must meet a 70% mastery score on skills in this event.

Icon Key



<ul style="list-style-type: none"> • Low back stretch (both knees): Verbalized muscle • Low back stretch (both knees): Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Cat stretch (upper and mid back) : Verbalized muscle • Cat stretch (upper and mid back) : Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Hip flexor stretch: Verbalized muscle • Hip flexor stretch: Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Hip/trunk/tensor fasciae latae stretch: Verbalized muscle • Hip/trunk/tensor fasciae latae stretch: Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Groin stretch (butterfly) : Verbalized muscle • Groin stretch (butterfly) : Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Lying hamstring stretch: Verbalized muscle • Lying hamstring stretch: Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Standing hamstring stretch: Verbalized muscle • Standing hamstring stretch: Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Standing quadriceps stretch: Verbalized muscle • Standing quadriceps stretch: Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Gastrocnemius stretch: Verbalized muscle • Gastrocnemius stretch: Stretch 	<p>_____</p> <p>_____</p>	
<ul style="list-style-type: none"> • Soleus stretch: Verbalized muscle • Soleus stretch: Stretch 	<p>_____</p> <p>_____</p>	
<p>TOTAL POINTS -- SKILL I</p> <p>70% Mastery for Skills – 14.7</p>	<p>21</p>	

***If a student jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

SPORTS MEDICINE

Competitor #: _____

Judge's Signature: _____

Skill II-A	Assess ROM and Strength Testing of Shoulder (Time: 5 minutes) pages 291-292	Possible	Awarded
1.	Obtained instructions from athletic trainer (athletic trainer could be the judge)	1 0	
2.	ROM Test for External Rotation of the Shoulder <ul style="list-style-type: none"> a. Asked athlete to place his or her hands behind his or her head. b. Instructed athlete to externally rotate the shoulders by reaching down toward the shoulder blades as far as possible. c. Stepped behind athlete to evaluate results. d. Reported observations to the athletic trainer. 	1 0 1 0 1 0 2 0	
3.	ROM Test for Internal Rotation of the Shoulder <ul style="list-style-type: none"> a. Asked athlete to grasp his or her hands behind the back. b. Instructed athlete to internally rotate the shoulders by raising the hands as high as possible, keeping the hands behind the back. c. Stepped behind athlete to evaluate results. d. Reported observations to the athletic trainer. 	1 0 1 0 1 0 2 0	
4.	Specific ROM Tests for the Shoulder <ul style="list-style-type: none"> a. Asked athlete to perform adduction, abduction, flexion, extension, horizontal adduction and horizontal abduction through a pain-free range of motion. b. Reported observations to the athletic trainer. 	2 0 2 0	
5.	External Rotation Strength Test for the Shoulder <ul style="list-style-type: none"> a. Facing the athlete, placed hands on the lateral sides of the athlete's wrists. b. Instructed athlete to externally rotate his or her arms and push against your hands isometrically (increasing the tension of the muscle without movement of the joint), making sure to stabilize the athlete at the elbow. c. Reported observations to the athletic trainer. 	1 0 1 0 2 0	

Skill II-A	Assess ROM and Strength Testing of Shoulder	Possible	Awarded
6.	<p>Internal Rotation Strength Test for the Shoulder</p> <p>a. Facing the athlete, placed hands on the medial sides of the athlete's wrists while the athlete's elbow is bent at 90 degrees.</p> <p>b. Instructed athlete to internally rotate his or her arms and push against your hands isometrically, making sure to stabilize the athlete at the elbow.</p> <p>c. Reported observations to the athletic trainer.</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
7.	<p>Extension Strength Test for the Shoulder</p> <p>a. Made sure the shoulder girdle was stabilized, placed your hand on the posterior aspect of the athlete's elbow, while the athlete's elbow is bent at 90 degrees.</p> <p>b. Instructed athlete to push backward against your hand isometrically.</p> <p>c. Reported observations to the athletic trainer.</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
8.	<p>Flexion Strength Test for the Shoulder</p> <p>a. Made sure the shoulder girdle was stabilized, placed your hand on the anterior aspect of the athlete's bicep.</p> <p>b. Instructed athlete to push forward against your hand isometrically.</p> <p>c. Reported observations to the athletic trainer.</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
9.	<p>Empty Can Test</p> <p>a. Instructed athlete to extend both arms forward at a 90° angle to the body while horizontally abducting the arm to a 30° angle.</p> <p>b. Instructed athlete to internally rotate his or her arms as much as possible, turning the thumbs down, and to hold this position while you push down on his or her wrists.</p> <p>c. Reported observations to the athletic trainer.</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
<p>TOTAL POINTS – SKILL II-A</p> <p>70% Mastery for Skill II-A = 24.5</p>		<p>35</p>	

* Note: Abduction and adduction strength tests will not be evaluated.

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SPORTS MEDICINE

Competitor #: _____ Judge's Signature: _____

Skill II-B Assess ROM and Strength Testing of Ankle and Foot (Time: 5 minutes)		Possible	Awarded
1.	Obtained instructions from athletic trainer (athletic trainer could be the judge)	1 0	
2.	Asked athlete to remove shoes (if worn) and lie supine or sit on a table with feet hanging over the edge.	1 0	
3.	<p>ROM Test for Ankle Inversion</p> <p>a. Instructed athlete to turn both ankles in so that the soles of the feet begin to face each other. Observed and compared bilaterally.</p> <p>b. Checked passive ROM by applying controlled force to the feet as the athlete repeats step a above.</p> <p>c. Reported observations to the athletic trainer.</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
4.	<p>ROM Test for Ankle Eversion</p> <p>a. Instructed athlete to turn both ankles out so that the soles of the feet face away from each other. Observed and compared bilaterally.</p> <p>b. Checked passive ROM by applying controlled force to the feet as the athlete repeats step a above.</p> <p>c. Reported observations to the athletic trainer.</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
5.	<p>ROM Test for Plantar Flexion of the Ankle</p> <p>a. Instructed athlete to extend both ankles so the toes extend as far away from his/her body as possible. Observed and compared bilaterally.</p> <p>b. Checked passive ROM by applying controlled force to the feet as the ankles go through the ROM described above.</p> <p>c. Reported observations to the athletic trainer</p>	<p>1 0</p> <p>1 0</p> <p>2 0</p>	
6.	<p>ROM Test for Dorsiflexion of the Ankle</p> <p>a. Instructed athlete to flex both ankles so the toes move closer to his/her body. Observed and compared bilaterally.</p> <p>b. Checked passive ROM by applying controlled force to the feet as the ankles go through the ROM described above.</p>	<p>1 0</p> <p>1 0</p>	

Skill II-B	Assess ROM and Strength Testing of Ankle and Foot	Possible	Awarded
	c. Reported observations to the athletic trainer.		
7.	Plantar Flexion Strength Test for the Ankle a. Placed hands on the underside of both the athlete's feet, near the toes. b. Applied isometric resistance and instructed the athlete to push downward, away from his or her body. c. Reported observations to the athletic trainer	1 0 1 0 2 0	
8.	Dorsiflexion Strength Test for the Ankle a. Placed hands on the distal portion of both the athlete's feet, backs of your hands facing the athlete. b. Applied isometric resistance and instructed the athlete to pull his/ her feet back towards the body. c. Reported observations to the athletic trainer	1 0 1 0 2 0	
9.	Inversion Strength Test for the Ankle a. Made hands into fists and placed them together between the athlete's feet, near the toes. b. Applied isometric resistance and instructed the athlete to push medially against your hands at the same time. c. Reported observations to the athletic trainer	1 0 1 0 2 0	
10.	Eversion Strength Test for the Ankle a. Placed hands on the outer aspect of both the athlete's feet, near the toes. b. Applied isometric resistance and instructed the athlete to push laterally against your hands at the same time. c. Reported observations to the athletic trainer	1 0 1 0 2 0	
TOTAL POINTS -- SKILL II-B		34	
70% Mastery for Skill II-B = 23.8			

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SPORTS MEDICINE

Competitor #: _____ Judge's Signature: _____

Skill III-A Taping – Ankle (Time: 5 minutes)		Possible		Awarded
1.	Obtained instructions from Head Athletic Trainer	1	0	
2.	Assembled equipment	1	0	
3.	Greeted athlete and introduced self.	1	0	
4.	Identified athlete and explained skill	2	0	
5.	Positioned athlete sitting on a taping table with the foot/ankle extended approximately 6 inches over the edge of the table with the foot relaxed.	1	0	
6.	Instructed athlete to hold foot in neutral position (neither turned in nor out) and dorsiflexed slightly (toes to nose) to approximately a 90° angle.	2	0	
7.	Sprayed area with tape adherent	1	0	
8.	Applied a pad gauze, such as a heel and lace pad, coated with friction-proofing material, such as grease, over the instep and to the back of the heel.	2	0	
9.	Applied a single layer of underwrap to foot and ankle.	2	0	
10.	Placed an anchor around the ankle approximately 5 or 6 inches above the malleolus, just below the belly of the gastrocnemius muscle.	2	0	
11.	Placed a second anchor around the instep just proximal to the styloid process of the fifth metatarsal.	2	0	
12.	Applied the first strip posteriorly to the malleolus and attached it to the foot anchor strips.	2	0	
13.	Started the first horizontal strip of the basket weave directly under the malleolus and attached it to the foot anchor.	2	0	
14.	In an alternating series, placed three vertical strips and three horizontal strips on the ankle with each piece of tape overlapping at least half of the preceding strip.	2	0	
15.	In the above step, the strips and anchors did not put pressure on the 5 th metatarsal.	2	0	
16.	After applying the basket weave series, continued the horizontal strips up the ankle to the anchor.	2	0	
17.	For arch support, applied two or three circular strips lateral to medial.	2	0	
18.	After completing the conventional basket weave, applied two or three heel locks to ensure maximum stability. Started the heel lock on the top of the foot at the ankle joint.	2	0	
19.	Angled the tape around the back and above the calcaneous, then, under the heel (or under the heel, then back up over the top of the ankle. above the calcaneous), then back up over the top of the ankle.	2	0	

Skill III-A	Taping – Ankle (continued)	Possible		Awarded
20.	Repeated the same pattern on the other side of the ankle joint moving in the opposite direction. For individuals with lateral (inversion) ankle sprains, the ankle should be pulled outward by applying more tension on the tape in a lateral direction. For medial (eversion) sprains, the ankle should be pulled inward by applying more tension on the tape in a medial direction.	2	0	
21.	All tape applied snugly but not so tightly as to compromise circulation.	2	0	
22.	Allowed tape to fit the natural contour of the skin	2	0	
23.	Skill completed on the correct side / body part	2	0	
24.	Upon direction of the athletic trainer, properly used tape scissors (cutter) to remove taping	2	0	
25.	Properly disposed of used taping materials	1	0	
26.	Reported skill and observations to the athletic trainer	2	0	
TOTAL POINTS -- SKILL III-A		46		
70% Mastery for Skill III-A = 32.2				

***If a student jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

SPORTS MEDICINE

Competitor #: _____ Judge's Signature: _____

Skill III-B Taping – Arch (Time: 4 minutes)		Possible		Awarded
1.	Obtained instructions from athletic trainer	1	0	
2.	Assembled equipment	1	0	
3.	Greeted athlete and introduced self.	1	0	
4.	Identified athlete and explained skill	2	0	
5.	Positioned athlete sitting on a taping table with the foot/ankle extended approximately 6 inches over the edge of the table with the foot relaxed.	1	0	
6.	Sprayed area with tape adherent	1	0	
7.	Placed one anchor strip around the ball of the foot.	2	0	
8.	Starting at the third metatarsal head, took the tape around the heel from the lateral side and met the strip where it began.	2	0	
9.	Started the next strip near the second metatarsal head and finished on the fourth metatarsal head.	2	0	
10.	Began the last strip on the fourth metatarsal head and finished on the fifth. The technique, when completed, formed a fanshaped pattern covering the metatarsal region.	2	0	
11.	Locked strips using 1 ½ inch tape and encircling the complete arch.	2	0	
12.	Skill completed on the correct side / body part.	2	0	
13.	Upon direction of the athletic trainer, properly used tape scissors (cutter) to remove taping	2	0	
14.	Properly disposed of used taping materials	1	0	
15.	Reported skill and observations to the athletic trainer	2	0	
TOTAL POINTS -- SKILL III-B		24		
70% Mastery for Skill III-B = 16.8				

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SPORTS MEDICINE

Competitor #: _____

Judge's Signature: _____

Skill III-C	Taping – Elbow (Time: 6 minutes)	Possible		Awarded
1.	Obtained instructions from athletic trainer	1	0	
2.	Assembled equipment	1	0	
3.	Greeted athlete and introduced self.	1	0	
4.	Identified athlete and explained skill	2	0	
5.	Positioned athlete standing with the affected elbow flexed at 90 degrees.	1	0	
6.	Sprayed area with tape adherent.	1	0	
7.	Applied underwrap to the arm over the limits of the taping skill.	2	0	
8.	Applied three anchor strips loosely around the forearm.	2	0	
9.	Applied three anchor strips loosely around the upper arm approximately 2 inches to above the curve of the elbow (antecubital fossa).	2	0	
10.	Constructed a checkrein by cutting a 10-inch and a 4-inch strip of tape and laying the 4-inch strip against the center of the 10-inch strip, blanking out that portion.	2	0	
11.	Next, placed the checkrein so that it spans the two anchor strips with the blanked-out side facing downward.	2	0	
12.	Left checkrein extended 1 to 2 inches past anchor strips on both ends, allowing anchoring of the checkreins with circular strips to secure against slippage.	2	0	
13.	Placed five additional 10-inch strips of tape over the basic checkrein.	2	0	
14.	Finished the skill by securing the checkrein with three lock strips on each end.	2	0	
15.	Applied a figure-eight elastic wrap applied over the taping to prevent the tape from slipping because of perspiration.	2	0	
16.	Tape is smooth and snug with all pieces evenly overlapped and joined.	2	0	
17.	All tape applied snugly but not so tightly as to compromise circulation.	2	0	
18.	Skill completed on the correct side / body part	2	0	
19.	Upon direction of the athletic trainer, properly used tape scissors (cutter) to remove taping	2	0	
20.	Disposed of used taping materials	1	0	
21.	Reported skill and observations to the athletic trainer	2	0	
TOTAL POINTS -- SKILL III-C		36		
70% Mastery for Skill III-C = 25.2				

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SPORTS MEDICINE

Competitor #: _____ Judge's Signature: _____

Skill III-D Taping – Thumb (Time: 5 minutes)	Possible	Awarded
1. Obtained instructions from athletic trainer	1 0	
2. Assembled equipment	1 0	
3. Greeted athlete and introduced self.	1 0	
4. Identified athlete and explained skill	2 0	
5. The athlete should hold the injured thumb in a relaxed neutral position.	1 0	
6. Sprayed area with tape adherent.	1 0	
7. Applied underwrap to the hand and wrist	2 0	
8. Placed an anchor strip loosely around the wrist and another around the distal end of the thumb.	2 0	
9. From the anchor at the tip of the thumb to the anchor around the wrist, applied four splint strips in a series on the side of greater injury (dorsal or palmar side) and held them in place with one lock strip around the wrist and one encircling the tip of the thumb.	2 0	
10. Added three thumb spicas. Started the first spica on the radial side at the base of the thumb and carried it under the thumb, completely encircling it, and then crossing the starting point.	2 0	
11. The strip continued around the wrist and finished at the starting point.	1 0	
12. Each of the subsequent spica strips overlapped the preceding strip by at least 2/3 inch and moved downward on the thumb.	2 0	
13. All tape applied snugly but not so tightly as to compromise circulation.	2 0	
14. Skill completed on the correct side / body part	2 0	
15. Upon direction of the athletic trainer, properly used tape scissors (cutter) to remove taping	2 0	
16. Disposed of used taping materials	1 0	
17. Reported skill and observations to the athletic trainer	2 0	
TOTAL POINTS -- SKILL III-D	27	
70% Mastery for Skill III-D = 18.9		

***If a student jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*