

Writing High Quality Exam Questions

Workbook #1

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Example Questions

#1

Which of the following conditions are indicated by point tenderness palpation on an enlarged tibial tuberosity? **Choose only one.**

- A. **Osgood-Schlatters's Disease**
- B. Sever's Disease
- C. Iliotibial Band Syndrome
- D. Quadriceps Tendonitis
- E. Baker's Cyst

If your organization is struggling trying to achieve its financial goals, a strategic plan can be extremely beneficial. Which of the following are goals of strategic planning? **Choose all that apply.**

- A. **Strategic planning helps explain why the organization exists**
- B. **Strategic planning and goals can help build support**
- C. **Strategic planning can be used as a tool for improvement**
- D. Strategic planning helps define goals for 1-2 years
- E. Strategic planning helps identify who your main clients are



BOC Exam Development Style Guide

Last Edited on July 10, 2012

This document is developed to assist BOC item writers and other stakeholders. It provides guidelines/rules to help standardize the development of the BOC exam.

*This is an evolving document and will be reviewed on a regular basis for edits and alterations.

1. General Guidelines

- A. All items must reflect the current classification system that is derived from the most current BOC Role Delineation Study/Practice Analysis.
- B. Individual items will only test one concept at a time.
 - If a stem gives information as to a set of signs and symptoms and asks the candidate to identify the potential condition and what to do next, the item should be rewritten into two items since it is trying to test two concepts (i.e., identification and treatment).
 - Example: "What is the normal pulse rate of an adult and how would each be measured?" Would need to be split into two separate items. Knowledge of normative values is one concept and how to assess each is a separate concept.
- C. Items should be written for the entry-level athletic trainer and pertinent to assessing minimum competence required for an athletic trainer within two to three years of entry to the profession.
- D. All items should be written clearly and concisely (minimize expressive/descriptive verbiage).
 - If including practice setting, age, gender, sport, etc., it should have a direct bearing on the content of the item.
- E. All items should be written in the form of a question and end in a question mark (?). No fill in the blank or incomplete sentence items.
- F. The item stem should include all information that is relevant and necessary to answer the question. If necessary, bullet points may be added to present the information in a clear & concise manner (i.e. signs and symptoms). Bulleted information should be short & concise (no full sentences).
- G. Construction of items should avoid content where there may be inconsistencies or variations

in, accepted/published terminology, local/regional/national/institutional laws, regulations and/or policies & procedures.

- H. Refer to the person first within the item as opposed to the injury/illness.
- Example: “A patient with a sprained ankle...”
- I. All items will be written in third-person.
- Example: “An athletic trainer would...” as opposed to “you would...”
- J. All items should be stated positively and avoid the use of statements such as:
- “All of the following EXCEPT”
 - “Which of the following is NOT true?”
- K. All distractors should be clearly incorrect but plausible and consistent in content.
- “Clearly incorrect but plausible” could include common misconceptions, common errors, familiar but incorrect phrases with some embedded truth or close but incorrect information.
 - “Consistent in content” refers to all distractors being in the same “family”. If the stem is asking about “muscles”, all of the distractors need to be “muscles.”
- L. Items should be written in “active voice.”
- Example: “The student played basketball at school today.” vs. “Basketball was played at school today.”
- M. Referencing exam items:
- All items should have a minimum of two references.
 - Except for seminal references, references will be no more than 5 years old.
 - i. A “Seminal Reference” is typically older than 5 years but has withstood “the test of time” and continues to be used in most ATEPs as per the Program Director Reference Survey.
 - References will be generally found to be utilized within a considerable portion of the field of Athletic Training.
 - References should be publically available, that is, not confidential or of limited release. Publically available may require some cost (e.g., a text book, library subscription).
 - In regards to professional statements, Position Statements will be accepted and used (no “official” or “consensus” statements may be used).
 - All references will be cited from their “primary source.”
 - Example: NATA Position Statement should be referenced from the Journal of Athletic Training and **not** the NATA web-site.
 - Peer reviewed journal articles can be used as long as they are either position statements or meta-analyses.
 - The NCAA Handbook or any other professional organization or institutional handbooks are **not** to be used as a reference.

2. Terminology

- A. Patient vs. Athlete vs. Client:
 - An individual receiving athletic training service should be referred to as “patient;” the descriptor “athlete” should only be used when a problem is based on participation in a sport.
 - The term “client” should be used for situations where individuals receive athletic training services, usually preventive in nature, on a fee-for-service basis.
- B. If age of the “athlete” or “patient” is a relevant factor in the item, specify the age.
- C. Terminology

Correct Usage	Incorrect Usage
Athletic Trainer	Certified Athletic Trainer
Physician	Doctor
Athletic training “services”	Athletic training “coverage”
BOC	NATABOC or NATA-BOC
Athletic training facility	Athletic training room
Health Care Provider	Allied Health Care Provider
Orthopedic	Orthopaedic

- D. Use “Emergency Cardiac Care (ECC)” as a collective noun. Use “CPR” and “AED” when using an AED or applying CPR.
- E. Use “ligamentous testing,” “manual muscle testing,” and/or “special testing.”
- F. Use “differential diagnosis” and/or “impression.”
- G. All items must have a clear choice when using “best” or “most.” “Best” and/or “Most” implies that the correct choice is optimal for the situation when compared to other choices.
- H. Refer to medications by their action.
 - Example: “Antibiotic” instead of “Azithromycin” (Z-Pack)
 - Example: “Non-Steroidal Anti-Inflammatory” (NSAID) instead of “Celebrex”
- I. Practice settings will be referred to as the following:
 - Clinic/Hospital
 - Health/Fitness Industry
 - Industrial/Corporate
 - Corporate
 - Military/Government/Law Enforcement Professional Sports/Performing Arts
 - Sales/Marketing
 - Secondary School
 - University/College/Community College
 - Youth Sports

- J. Cranial nerves will be expressed as both the roman numeral and the formal name:
- “Cranial Nerve V (Trigeminal)”
 - “Cranial Nerve II (Optic)”
- K. When a term has two commonly accepted forms, both will be used and displayed as the following:
- i.e., “Peroneal (fibularis) tendons”
 - i.e., “External (lateral) rotation”
 - i.e., “Internal (medial) rotation”
 - i.e., “3.0/3.3 MHz”
- L. Deep Tendon Reflexes will be expressed as:
- 0 = Absent
 - 1+ = Hypoactive
 - 2+ = Normal
 - 3+ = Brisk
 - 4+ = Hyperactive with Clonus
- M. When expressing the pain scale, it will be listed as the following:
- “8 on a 10 point scale”
- N. Standard instructions for items:
- Multiple-Choice: *Choose only one*
 - Multi-Select: *Choose all that apply*
- O. Ultrasound parameters will be expressed as the following:
- Frequency = MHz
 - Power = w/cm²
- P. Electrical Modalities
- The use of “Hz” is appropriate when designating the frequency of alternating current (AC) modalities
 - The use of “pps” is appropriate when designating the pulse rate.
 - Duty cycle will be expressed as “10 seconds on/50 seconds off”
- Q. Trademarked, Registered, and Copyrighted Names
- Names that hold the marks ™, ®, © are not to be used in exam items. The generic version to describe the protected term must be used

3. Abbreviations

Abbreviations on the list below may be used without spelling out the entire term. All other abbreviations **NOT** on the list below need to be spelled out: i.e., American Red Cross (ARC). This does not apply when an item is specifically testing the knowledge of commonly accepted abbreviations.

AAROM	Active Assistive Range of Motion
ACL	Anterior Cruciate Ligament
ADL	Activities of Daily Living
AED	Automated External Defibrillator
AIDS	Acquired Immune Deficiency Syndrome
AMA	American Medical Association
AROM	Active Range of Motion
BESS	Balance Error Scoring System
BID	Twice a Day
BMI	Body Mass Index
BOC	Board of Certification, Inc.
BP	Blood Pressure
bpm	Beats Per Minute
CAATE	Commission on Accreditation of Athletic Training Education
CDC	Centers for Disease Control and Prevention
COPD	Chronic Obstructive Pulmonary Disease
CPM	Continuous Passive Motion
CPR	Cardiopulmonary Resuscitation
CT Scan	Computed Tomography Scan
DIP	Distal Interphalangeal
DSM IV	Diagnostic and Statistical Manual of Mental Disorders - 4th Ed.
EAP	Emergency Action Plan
ECC	Emergency Cardiac Care
ECG/EKG	Electrocardiogram
EMG	Electromyogram
EMS	Emergency Medical Services
EPA	United States Environmental Protection Agency
FERPA	Family Educational Rights and Privacy Act
FDA	U.S. Federal Drug Administration
HIPAA	Health Insurance Portability and Accountability Act
HIV	Human Immunodeficiency Virus
HMO	Health Maintenance Organization
HOPS	History, Observation, Palpation, Special Tests
HR	Heart Rate

LCL	Lateral Collateral Ligament <ul style="list-style-type: none"> • Need to specify which body part (knee, elbow, etc.)
MCL	Medial Collateral Ligament <ul style="list-style-type: none"> • Need to specify which body part (knee, elbow, etc.)
MCP	Metacarpophalangeal
MMT	Manual Muscle Test
MRI	Magnetic Resonance Imaging
MRSA	Methicillin Resistant Staph Aureus
MTP	Metatarsophalangeal
NATA	National Athletic Trainers' Association
NCAA	National Collegiate Athletic Association
NOCSAE	National Operating Committee on Standards for Athletic Equipment
NSAID	Non-Steroidal Anti-Inflammatory Drugs
OSHA	Occupational Safety and Health Administration
OTC	Over-the-Counter
PCL	Posterior Collateral Ligament
PIP	Proximal Interphalangeal
PNF	Proprioceptive Neuromuscular Facilitation
PPE	Pre Participation Examination
PPO	Preferred Provider Organization
pps	Pulse Per Second
PRN	As Needed
PROM	Passive Range of Motion
QD	Per Day
QID	Four Times a Day
ROM	Range of Motion
RROM	Resistive Range of Motion
SLAP	Superior Labral Tear from Anterior to Posterior
SOAP	Subjective, Objective, Assessment, Plan
STD	Sexually Transmitted Disease <ul style="list-style-type: none"> • When referring to STD, need to mention STI in parentheses
STI	Sexually Transmitted Infection <ul style="list-style-type: none"> • When referring to STI, need to mention STD in parentheses
TBI	Traumatic Brain Injury
TENS	Transcutaneous Electrical Nerve Stimulation
TID	Three Times a Day
WGBT	Wet-Bulb Globe Temperature
WNL	Within Normal Limits
X Ray	Radiographs

4. Numbers

- A. Numbers less than 10 will be spelled out.
 - Example: 7 = seven
- B. Insert a leading zero if the decimal number is less than one.
 - Example: 0.4 meters instead of .4 meters
- C. Age will be displayed as the following:
 - Example: 17 year(s) old, Nine year(s) old
- D. Refer to spinal segments with no hyphens or spaces.
 - Example: **C4** instead of C 4 or C-4

5. Measurements

- A. All measurements (results and inanimate objects) will be displayed in English Customary Units with the Metric System equivalent in parentheses to one decimal point.
 - Example: 160 lbs (72.5 kg)
- B. All temperatures will be displayed in Fahrenheit with the Celsius equivalent in parentheses.
 - Example: 98 degrees F (36.7 degrees C)

Inch = in	Millimeter = mm	1 in = 2.54 cm	1 tsp = 5 ml
Foot = ft	Centimeter = cm	1 ft = 30.48 cm = 0.305	1 c = 236 ml
Yard = yd	Meter = m	1 yd = 0.914 m	1 qt = 0.946 l
Mile = mi	Kilometer = km	1 mi = 1.609 km	1 gal = 3.785 l
Ounce = oz	Gram = g		
Pound = lb	Milliliter = ml	1 oz = 28.350 g	
Tablespoon = tbsp	Liter = l	1 lb = 0.453 kg	
Teaspoon = tsp	Celsius = C		
Cup = c	Fahrenheit = F	1 degree C = (F - 32) * 0.5555556	
Quart = qt	Millimeters of mercury = mmHg		

6. Time

- A. When referring to “after” something, it will be referred to as “post.”
 - Example: “post-practice” vs. “after practice” and “post-surgery” or “post-surgical” vs. “after surgery”
- B. When referring to “before” something, it will be referred to as “pre.”
 - Example: “pre-practice”
- C. Specific time-of-day will be expressed as:
 - 9:00 a.m., 12:00 p.m. (noon), 5:00 p.m., 12:00 a.m. (midnight)

7. Hyphenation

- A hyphen will be used when grammatically indicated.

8. Range of Motion (values)

- A. Must include joint/motions assessed.
- B. Must include a number range.
 - Example: 0–60 degrees of elbow flexion

9. Severity of Injury (grades)

The following injury severity grading will be utilized for all items:

- A. **Grade I (mild)** = little or no damage to tissue, normally no loss of function.
- B. **Grade II (moderate)** = partial tearing or damage to tissue with some loss of function noted.
- C. **Grade III (severe)** = complete or near complete tear or rupture of tissue with complete loss of function usually noted.

10. Muscle Testing

- A. The following manual muscle testing grading scale will be utilized for all items:

Normal	5	Complete ROM against gravity with maximal resistance
Good	4	Complete ROM against gravity with moderate resistance
Fair +	3 +	Complete ROM against gravity with minimal resistance
Fair	3	Complete ROM against gravity with no resistance
Fair -	3 -	Some, but not complete, ROM against gravity
Poor +	2 +	Initiates motion against gravity
Poor	2	Complete ROM with some assistance and gravity eliminated
Poor -	2 -	Initiates motion if gravity is eliminated
Trace	1	Evidence of slight muscular contraction; no joint motion
Zero	0	No muscle contraction palpated

- B. Manual muscle testing will be expressed in this manner:
 - The patient tested 3/5 (Fair) upon a manual muscle test of the biceps brachii

11. Cultural Sensitivity

- A. Items must be written to be sensitive to differences in gender, ethnicity and religious beliefs of the candidate. We will strive to balance these differences by the inclusion of all gender/ethnic groups within exam items.
- B. When writing a problem for a certification exam, item writers need to be vigilant about producing work that is fair — avoiding bias and stereotyping. Bias and stereotyping in testing are two different concepts.

- **Bias:** No problem should have characteristics that result in differential performance for individuals of the same ability but from different ethnic, gender, cultural or religious groups. Problems also can have characteristics that may cause bias against individuals with disabilities.
- **Stereotyping:** Tests should be free of material that may be offensive, demeaning or emotionally charged. While the presence of such material may not make the problem more difficult for the candidate, it may cause her or him to become “turned off” or emotional and result in lowered performance.

12. Sports/Activities

- When constructing items, all types of activities need to be represented within the exam. Therefore, we will not lean heavily on any given sport/activity when writing items (i.e., basketball, industrial worker, recreational participant, etc.)

13. Emergency Cardiac Care (ECC) Items

- Only items that refer to when to utilize CPR/AED or that give information about the status of CPR/AED are applicable to the exam. Items pertaining to the specifics of CPR/AED application (i.e., compression ratio, number of respirations, etc.) are not needed. All candidates have to submit a current ECC card to the BOC in order to become certified upon passing the exam.

14. Images, Audio, & Video Files

- A. All submitted media must be free of copyrights. This includes releases from models used in the images or from artists who created the images.
- If needed, the BOC will handle all copyright issues with files used for exam items..
- B. Specific requirements:

Digital Imagery	Diagrams and Other Non-Photographic Images	Scanned Imagery	Videos	Audio (stand alone)
Original source file should be 1600 x 3200 dpi (largest setting on most digital cameras). If file is too large to submit via I-Dev, please compress and submit via email to the project manager.	Original source file should be 1600 x 3200 dpi. If file is too large to submit via I- Dev, please compress and submit via email to the project manager.	Images should be no less than 256 colors and 1200 dpi.	Files should be in MPEG format with 10,005 Kbit/second streaming video and 44,100 Hz * 320 Kbit/second audio channel.	Files should be non-compressed .wav files.

BOC Classification System for RD6

Description	Classification Code
Domain 1: Injury/illness Prevention and Wellness Protection <i>Educating participants and managing risk for safe performance and function.</i>	010000
<i>Task 1: Minimize risk of injury and illness of individuals and groups impacted by or involved in a specific activity through awareness, education, and intervention.</i>	010100
Knowledge of:	
1. Roles of appropriate individuals (e.g., administrators, management, parents/guardians/family members, coaches, participants, and members of the health care team) in risk and illness prevention	010101
2. Behavioral risks (e.g., nutritional, sexual, substance abuse, blood-borne pathogens, sedentary lifestyle, and overtraining)	010102
3. Catastrophic risks (e.g., cardiorespiratory, neurological, thermoregulatory, endocrinological, and immunological)	010103
4. Common risks (e.g., musculoskeletal, integumentary, neurological, respiratory, and medical)	010104
5. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	010105
6. Environmental risks (e.g. heat, cold, altitude, sunburn, insects, visibility/lighting, and lightning)	010106
7. Mechanisms of common and catastrophic injury	010107
8. Preventive measures (e.g., safety rules, accepted biomechanical techniques, ergonomics, and nutritional guidelines)	010108
Skill in:	
9. Communicating effectively	010109
10. Identifying appropriate resources	010110
11. Identifying risks	010111
<i>Task 2: Interpret individual and group pre-participation and other relevant screening information (e.g., verbal, observed, written) in accordance with accepted and applicable guidelines to minimize the risk of injury and illness.</i>	010200
Knowledge of:	
1. Established laws, regulations, and policies (e.g., institutional, state, and national)	010201
2. Established guidelines for recommended participation	010202
3. Pre-participation evaluation process and procedures	010203
4. Privacy laws	010204
Skill in:	
5. Applying appropriate pre-participation screening information	010205
6. Applying established guidelines and regulations	010206
7. Collecting appropriate pre-participation screening information	010207
8. Identifying appropriate resources	010208
9. Identifying health-related conditions that may limit or compromise participation	010209
10. Identifying established guidelines and regulations	010210
<i>Task 3: Identify and educate individual(s) and groups through appropriate communication methods (e.g., verbal, written) about the appropriate use of personal protective equipment (e.g., clothing, shoes, protective gear, and braces) by following accepted procedures and guidelines.</i>	010300
Knowledge of:	
1. Commercially available protective products	010301

Description	Classification Code
2. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	010302
3. Effective use of prophylactic/protective measures	010303
4. Established standards pertaining to protective equipment (e.g., NOCSAE and ASTM)	010304
5. Intended purpose, limitations, and capabilities of protective equipment	010305
6. Legal risks and ramifications of making equipment modifications	010306
7. Legal and safety risks involved in the construction and use of custom and commercial protective devices	010307
8. Manufacturer's guidelines regarding selection, fit, inspection, and maintenance of equipment	010308
9. Materials and methods for fabricating custom-made protective devices	010309
10. Physical properties of the protective equipment materials (e.g., absorption, dissipation, and transmission of energy)	010310
Skill in:	
11. Educating individuals on the selection of standard protective equipment	010311
12. Fabricating and fitting custom-made devices	010312
13. Fitting standard protective equipment	010313
14. Interpreting rules regarding protective equipment	010314
15. Identifying injuries, illnesses, and health-related conditions that warrant the application of custom-made or commercially available devices	010315
16. Selecting and applying commercial devices	010316
<i>Task 4: Maintain physical activity, clinical treatment, and rehabilitation areas by complying with regulatory standards to minimize the risk of injury and illness.</i>	<i>010400</i>
Knowledge of:	
1. Laws, regulations, and policies (e.g., institutional, state, and national) regarding safety and sanitation	010401
2. Manufacturer's guidelines for maintaining equipment and devices	010402
3. Health-related conditions that pose risk	010403
Skill in:	
4. Complying with manufacturer's recommendations for maintenance of equipment	010404
5. Maintaining a safe and sanitary environment in compliance with established standards (e.g., OSHA, universal precautions, local health department, and institutional policy)	010405
6. Recognizing noncompliance with safety and sanitation standards	010406
7. Recognizing malfunction or disrepair of therapeutic modalities, rehabilitation equipment, or furnishings in clinical and treatment areas	010407
<i>Task 5: Monitor environmental conditions (e.g., weather, surfaces, client work-setting) using appropriate methods and guidelines to facilitate individual and group safety.</i>	<i>010500</i>
Knowledge of:	
1. Health-related conditions of participants that predispose them to environmentally caused illness (e.g., prior heat illness, sickle cell trait, asthma, recent viral infection, use of medication, ergogenic aids, obesity, and dehydration)	010501
2. Emergency communication systems	010502
3. Environmental conditions that create risk (e.g., heat, humidity, cold, altitude, pollution, weather extremes, insect swarms, infectious pathogens, and ergonomic conditions)	010503
4. Ergonomic and epidemiological risk factors as they related to participation	010504

Description	Classification Code
5. Established standards regarding environmental risks (e.g., governing body rules/regulations, NATA, NCAA, ACSM, etc.)	010505
6. Hazards common in activity areas (e.g., surface irregularities, obstructions, inadequate offsets, moisture and other foreign objectives, inadequate lighting, inadequate ingress and egress)	010506
7. Hazards common to equipment (e.g., shoulder pads, goal posts, computer keyboards, desk chairs, hand trucks)	010507
8. Methods for reducing risk from environmental conditions (e.g., activity scheduling, clothing selection, and fluid replacement)	010508
9. Policies and procedures for removing participants from environmental risk situations (e.g., heat index, lightning and activity scheduling)	010509
10. Policy statements and guidelines pertaining to safety hazards (e.g., NATA and NCAA)	010510
11. Rules governing play and established standards and practices	010511
Skill in:	
12. Conducting inspections and recognizing hazards	010512
13. Monitoring techniques (e.g., weight charts, fluid intake, and body composition)	010513
14. Recognizing environmental and ergonomic risks	010514
15. Recognizing characteristics in participants that would predispose them to environmental and ergonomic risks	010515
16. Recommending and implementing appropriate methods for addressing hazards	010516
17. Using available resources to gather/interpret information regarding environmental data	010517
<i>Task 6: Maintain or improve physical conditioning for the individual or group by designing and implementing programs (e.g., strength, flexibility, CV fitness) to minimize the risk of injury and illness.</i>	010600
Knowledge of:	
1. Components of a physical conditioning program	010601
2. Current strength and conditioning techniques	010602
3. Ergonomics	010603
4. Human physiology	010604
5. Physiological adaptation to exercise (e.g., space and altitude)	010605
6. Various conditioning stages and program intervals	010606
Skill in:	
7. Addressing the components of a comprehensive conditioning program (e.g., strength, flexibility, endurance, sport requirements, and individual needs)	010607
8. Assessing appropriateness of individual or group participation in conditioning programs	010608
9. Correcting or modifying inappropriate, unsafe, or dangerous activities undertaken in conjunction with physical conditioning programs	010609
10. Educating appropriate individuals in the effective application of conditioning programs (e.g., guardian, coaches, participants, and administration)	010610
11. Instructing in the use of appropriate conditioning equipment (e.g., bikes, weight machines, and treadmills)	010611
<i>Task 7: Promote healthy lifestyle behaviors using appropriate education and communication strategies to enhance wellness and minimize the risk of injury and illness.</i>	010700
Knowledge of:	
1. Accepted guidelines for exercise prescription	010701

Description	Classification Code
2. Accepted nutritional practices	010702
3. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	010703
4. Predisposing factors for nutritional and stress-related disorders	010704
5. Professional resources for addictions (e.g., tobacco, alcohol, and narcotics)	010705
6. Professional resources for stress management and behavior modification (e.g., anger management, HIV/STD prevention, and operational stress control)	010706
7. Related nutritional disorders, inactivity-related diseases, overtraining issues, and stress-related disorders	010707
Skill in:	
8. Accessing information concerning accepted guidelines for nutritional practices	010708
9. Addressing the issue of special nutritional needs in regard to competition or activity (e.g., pre- and post-game meals and nutritional supplements)	010709
10. Communicating with appropriate professionals regarding referral and treatment for individuals	010710
11. Educating appropriate individuals on nutritional disorders, maladaptation, substance abuse, and overtraining	010711
12. Recognizing signs and symptoms of nutritional, addiction, and stress-related disorders	010712
Domain 2: Clinical Evaluation and Diagnosis <i>Implementing standard evaluation techniques and formulating a clinical impression for the determination of a course of action.</i>	020000
<i>Task 1: Obtain an individual's history through observation, interview, and/or review of relevant records to assess injury, illness, or health-related condition.</i>	<i>020100</i>
Knowledge of:	
1. Biomechanical factors associated with specific activities	020101
2. Communication techniques in order to elicit information	020102
3. Injuries, illnesses, and health-related conditions associated with specific activities	020103
4. Medical records as a source of information	020104
5. Pathomechanics of injury	020105
6. Pathophysiology of illnesses and health-related conditions	020106
7. Relationships between injuries, illnesses, and health-related conditions and outside factors (e.g., predisposing, nutritional, ergogenic aids, infectious agents, and medications)	020107
8. Signs and symptoms of injuries, illnesses, and health-related conditions	020108
9. Standard medical nomenclature and terminology	020109
10. The body's immediate and delayed physiological response to injuries, illnesses, and health-related conditions	020110
Skill in:	
11. Obtaining and recording information related to injuries, illnesses, and health-related conditions	020111
12. Identifying anatomical structures involved in injuries, illnesses, and health-related conditions	020112
13. Identifying nutritional factors related to injuries, illnesses, and health-related conditions	020113
14. Identifying psychosocial factors associated with injuries, illnesses, and health-related conditions	020114
15. Identifying the extent and severity of injuries, illnesses, and health-related conditions	020115

Description	Classification Code
16. Identifying the impact of supplements and prescription and nonprescription medications associated with injuries, illnesses, and health-related conditions	020116
17. Interpreting medical records and related reports	020117
18. Recognizing predisposing factors to specific injuries, illnesses, and health-related conditions	020118
19. Relating signs and symptoms to specific injuries, illnesses, and health-related conditions	020119
<i>Task 2: Utilize appropriate visual and palpation techniques to determine the type and extent of the injury, illness, or health-related condition.</i>	020200
Knowledge of:	
1. Human anatomy with emphasis on bony landmarks and soft tissue structures	020201
2. Immediate and delayed physiological response to injuries, illnesses, and health-related conditions	020202
3. Normal and abnormal structural relationships to the pathomechanics of injuries and health-related conditions	020203
4. Principles of palpation techniques and visual inspection	020204
5. Response to injuries, illnesses, and health-related conditions	020205
6. Signs of injuries, illnesses, and health-related conditions	020206
7. Standard medical nomenclature and terminology	020207
Skill in:	
8. Assessing immediate and delayed physiological responses to injuries, illnesses, and health-related conditions	020208
9. Assessing pre-existing structural abnormalities and relating them to pathomechanics of injuries, illnesses, and health-related conditions	020209
10. Identifying bony surface landmarks and soft tissue abnormalities of specific/ injuries, illnesses, and health-related conditions	020210
11. Identifying the relationship and severity of pathological signs of injuries, illnesses, and health-related conditions	020211
12. Locating and palpating bony landmarks, articulations, ligamentous structures, musculotendinous units, and other soft tissues	020212
13. Palpating appropriate structures in order to assess the integrity of human anatomical/physiological systems	020213
14. Recognizing severity of pathological signs and symptoms of injuries, illnesses, and health-related conditions	020214
<i>Task 3: Utilize appropriate tests (e.g., ROM, special tests, neurological tests) to determine the type and extent of the injury, illness, or health-related condition.</i>	020300
Knowledge of:	
1. Mechanics, principles, and techniques of specific/special tests (ligamentous, neurological, manual, fracture, and functional tests)	020301
2. Signs and symptoms of systemic failure during exercise	020302
3. Signs, symptoms, and interpretations of specific/special tests.	020303
4. Standard/individual special tests for range of motion, muscular strength, structural integrity, and functional capacity	020304
Skill in:	
5. Assessing muscular strength through the use of manual or non-manual muscle tests	020305
6. Assessing neurological function	020306
7. Assessing joint range of motion using test and measurement techniques	020307

Description	Classification Code
8. Identifying appropriate specific/special tests	020308
9. Identifying location, type, function, and action of each joint	020309
10. Identifying structural and functional integrity of anatomical structures	020310
11. Interpreting the information gained from specific/special tests	020311
12. Performing specific/special tests	020312
13. Using equipment associated with specific/special tests	020313
<i>Task 4: Formulate a clinical diagnosis by interpreting the signs, symptoms, and predisposing factors of the injury, illness, or health-related condition to determine the appropriate course of action.</i>	020400
Knowledge of:	
1. Basic pharmacology associated with diagnosis and courses of action	020401
2. Signs, symptoms, and predisposing factors related to injuries, illnesses, and health-related conditions	020402
3. Guidelines for return to participation	020403
4. Indications for referral	020404
5. Standard medical terminology and nomenclature	020405
6. Pathomechanics of injuries and/or health-related conditions	020406
7. Psychosocial dysfunction and implications associated with injuries, illnesses, and health-related conditions	020407
Skill in:	
8. Identifying appropriate courses of action (e.g., treatment plan, referral)	020408
9. Interpreting the pertinent information from the evaluation	020409
10. Synthesizing applicable information from an evaluation	020410
<i>Task 5: Educate the appropriate individual(s) about the clinical evaluation by communicating information about the injury, illness, or health-related condition to encourage compliance with recommended care.</i>	020500
Knowledge of:	
1. Commonly accepted practices regarding the care and treatment of injuries, illnesses, and health-related conditions	020501
2. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	020502
3. Patient confidentiality rules and regulations	020503
4. Potential health-related complications and expected outcomes	020504
5. Role and scope of practice of various health care professionals	020505
6. Standard medical terminology and nomenclature	020506
Skill in:	
7. Communicating with appropriate professionals regarding referral and treatment for individuals	020507
8. Directing a referral to the appropriate professionals	020508
9. Interpreting standard medical terminology and nomenclature and describing the nature of injuries, illnesses, and health-related conditions in basic terms	020509
10. Utilizing appropriate counseling techniques	020510
11. Using standard medical terminology and nomenclature	020511
Domain 3: Immediate and Emergency Care: <i>Employing standard care procedures and communicating outcomes for efficient and appropriate care of the injured.</i>	030000

Description	Classification Code
<i>Task 1: Coordinate care of individual(s) through appropriate communication (e.g., verbal, written, demonstrative) of assessment findings to pertinent individual(s).</i>	030100
Knowledge of:	
1. Components of the emergency action plan(s)	030101
2. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	030102
3. Roles of individual members of the medical management team	030103
Skill in:	
4. Communicating effectively with appropriate individuals (e.g., medical providers, patients, parents, administrators)	030104
5. Educating individuals regarding standard emergency care procedures	030105
6. Implementing the emergency action plan(s)	030106
<i>Task 2: Apply appropriate immediate and emergency care procedures to prevent the exacerbation of health-related conditions to reduce the risk factors for morbidity and mortality.</i>	030200
Knowledge of:	
1. Appropriate management techniques for life-threatening health-related conditions (e.g., respiratory, cardiac and central nervous)	030201
2. Appropriate use of emergency equipment and techniques (e.g., AED, CPR masks, and BP cuff)	030202
3. Mechanisms (biomechanics/kinesiology) of catastrophic conditions	030203
4. Common life-threatening medical situations (e.g., respiratory, central nervous, and cardiovascular)	030204
5. Emergency action plan(s)	030205
6. Federal and state occupational, safety, and health guidelines	030206
7. Human physiology: normal and compromised functions	030207
8. Physiologic reactions to life-threatening conditions	030208
9. Pharmacological and therapeutic modality usage for acute health-related conditions	030209
10. Signs and symptoms of common medical conditions	030210
11. Standard protective equipment and removal devices and procedures	030211
Skill in:	
12. Applying pharmacological	030212
13. Applying therapeutic modalities	030213
14. Performing cardio-pulmonary resuscitation techniques and procedures	030214
15. Implementing emergency action plan(s)	030215
16. Implementing federal and state occupational, safety, and health guidelines	030216
17. Implementing immobilization and transfer techniques	030217
18. Managing common non-life-threatening and life-threatening emergency situations/health-related conditions (e.g., evaluation, monitoring, and provision of care)	030218
19. Measuring, monitoring, and interpreting vital signs	030219
20. Removing protective equipment using appropriate removal devices and/or manual techniques	030220
21. Transferring care to appropriate medical and/or allied health professionals and/or facilities	030221
22. Using standard medical equipment	030222
23. Utilizing emergency equipment	030223

Description	Classification Code
<i>Task 3: Implement appropriate referral strategies, while stabilizing and/or preventing exacerbation of the condition(s), to facilitate the timely transfer of care for health-related conditions beyond the scope of practice of the Athletic Trainer.</i>	030300
Knowledge of:	
1. Common management strategies for life- and non-life-threatening health-related conditions	030301
2. Emergency action plan(s)	030302
3. Health-related conditions beyond the scope of the athletic trainer	030303
4. Indications for referral to other health care providers	030304
5. Roles of medical and allied health care providers	030305
Skill in:	
6. Communicating with appropriate professionals regarding referral and treatment for individuals	030306
7. Directing a referral to the appropriate professionals	030307
8. Immobilization, splinting and transfer techniques	030308
9. Implementing the emergency action plan(s)	030309
10. Managing common non-life-threatening and life-threatening emergency situations/health-related conditions until transfer to appropriate medical providers and facilities	030310
11. Recognizing acute health-related conditions beyond the scope of the athletic trainer	030311
<i>Task 4: Demonstrate how to implement and direct immediate care strategies (e.g., first aid, Emergency Action Plan) using established communication and administrative practices to provide effective care.</i>	030400
Knowledge of:	
1. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	030401
2. Emergency action plan(s)	030402
3. Evidence based practice	030403
4. Pertinent administrative practices	030404
5. Roles of medical and allied health care providers	030405
Skill in:	
6. Implementing the emergency action plan(s)	030406
7. Implementing relevant administrative practices (e.g., Injury reports, documentation, case reports)	030407
8. Instruction of emergency care techniques	030408
Domain 4: Treatment and Rehabilitation <i>Reconditioning participants for optimal performance and function.</i>	
040000	
<i>Task 1: Administer therapeutic and conditioning exercise(s) using appropriate techniques and procedures to aid recovery and restoration of function.</i>	040100
Knowledge of:	
1. Adaptation of the cardiovascular and muscular systems related to treatment, rehabilitation, and reconditioning	040101
2. Age-specific considerations related to treatment, rehabilitation, and reconditioning	040102
3. Available equipment and tools related to treatment, rehabilitation, and reconditioning	040103
4. Functional criteria for return to activity	040104
5. Indications and contraindications related to treatment, rehabilitation, and reconditioning	040105

Description	Classification Code
6. Inflammatory process related to treatment, rehabilitation, and reconditioning	040106
7. Neurology related to treatment, rehabilitation, and reconditioning	040107
8. Pharmacology related to treatment, rehabilitation, and reconditioning	040108
9. Principles of adaptation and overload of tissues	040109
10. Principles of adaptation of systems	040110
11. Principles of strength and conditioning exercises (e.g., plyometrics, core stabilization, speed, agility, and power)	040111
12. Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power, and endurance)	040112
13. Proprioception and kinesthesia related to treatment, rehabilitation, and reconditioning	040113
14. Psychology related to treatment, rehabilitation, and reconditioning	040114
15. Structure, growth, development, and regeneration of tissue	040115
16. Surgical procedures and implications for treatment, rehabilitation, and reconditioning	040116
Skill in:	
17. Applying exercise prescription in the development and implementation of treatment, rehabilitation, and reconditioning (e.g., aquatics, isokinetics, and closed-chain)	040117
18. Evaluating criteria for return to activity	040118
<i>Task 2: Administer therapeutic modalities (e.g., electromagnetic, manual, mechanical) using appropriate techniques and procedures based on the individual's phase of recovery to restore functioning.</i>	040200
Knowledge of:	
1. Available therapeutic modalities related to treatment, rehabilitation, and reconditioning	040201
2. Indications and contraindications for therapeutic modalities	040202
3. Inflammatory process related to therapeutic modalities	040203
4. Pharmacology related to therapeutic modalities	040204
5. Physiological response to therapeutic modalities	040205
6. Principles of mechanical, electromagnetic, and acoustical energy	040206
7. Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power, and endurance)	040207
8. Structure, growth, development, and regeneration of tissue	040208
9. Theories of pain	040209
Skill in:	
10. Applying manual therapy techniques	040210
11. Applying thermal, electrical, mechanical, and acoustical modalities	040211
12. Communicating with appropriate professionals regarding referral and treatment for individuals	040212
13. Recognizing the status of systemic illnesses	040213
14. Recognizing the status of bacterial, viral, fungal, and parasitic infections	040214
<i>Task 3: Apply braces, splints, or other assistive devices according to appropriate practices in order to facilitate injury protection to achieve optimal functioning for the individual.</i>	040300
Knowledge of:	
1. Commercially available soft goods	040301
2. Functions of bracing	040302
3. Legal risks and ramifications for bracing	040303
4. Pathomechanics of common and catastrophic injury	040304
5. Materials and methods for fabricating custom-made devices	040305

Description		Classification Code
6.	Pathomechanics of the injury or condition	040306
Skill in:		
7.	Applying braces, splints, or assistive devices	040307
8.	Fabricating braces, splints, or assistive devices	040308
<i>Task 4:</i>	<i>Administer treatment for injury, illness, and/or health-related conditions using appropriate methods to facilitate injury protection, recovery, and/or optimal functioning for individual(s).</i>	<i>040400</i>
Knowledge of:		
1.	Available reference sources related to injuries, illnesses, and health-related conditions	040401
2.	Medical and allied health care professionals involved in the treatment of injuries, illnesses, and health-related conditions	040402
3.	Pathophysiology associated with systemic illness, communicable diseases, and infections (e.g., bacterial, viral, fungal, and parasitic)	040403
4.	Pharmacology related to the treatment of injuries, illnesses, and health-related conditions	040404
5.	Psychological reaction to injuries, illnesses, and health-related conditions	040405
6.	Structure, growth, development, and regeneration of tissue	040406
Skill in:		
7.	Applying topical wound or skin care products	040407
8.	Applying thermal, electrical, mechanical, and acoustical modalities	040408
9.	Communicating with appropriate professionals regarding referral and treatment for individuals	040409
10.	Directing a referral to the appropriate professionals	040410
11.	Indications for referral	040411
12.	Recognizing the status of systemic illnesses	040412
13.	Recognizing the status of bacterial, viral, fungal, and parasitic infections	040413
<i>Task 5:</i>	<i>Reassess the status of injuries, illnesses, and/or health-related conditions using appropriate techniques and documentation strategies to determine appropriate treatment, rehabilitation, and/or reconditioning and to evaluate readiness to return to a desired level of activity.</i>	<i>040500</i>
Knowledge of:		
1.	Adaptation of the cardiovascular and muscular systems related to rehabilitation, recovery, and performance	040501
2.	Age-specific considerations related to rehabilitation, recovery, and performance	040502
3.	Appropriate documentation protocols	040503
4.	Functional criteria for return to activity	040504
5.	Indications and contraindications related to rehabilitation, recovery, and performance	040505
6.	Inflammatory process related to rehabilitation, recovery, and performance	040506
7.	Neurology related to rehabilitation, recovery, and performance	040507
8.	Principles of adaptation and overload of tissues	040508
9.	Principles of strength and conditioning exercises (e.g., plyometrics, core stabilization, speed, agility, and power)	040509
10.	Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power, and endurance)	040510
11.	Proprioception and kinesthesia related to rehabilitation, recovery, and performance	040511
12.	Psychology effects related to rehabilitation, recovery, and performance	040512
13.	Structure, growth, development, and regeneration of tissue	040513
14.	Surgical procedures and implications for rehabilitation, recovery, and performance	040514

Description	Classification Code
Skill in:	
15. Evaluating criteria for return to activity	040515
16. Interpreting assessment information necessary to modify, continue, or discontinue treatment plans	040516
<i>Task 6: Provide guidance and/or referral to specialist for individual(s) and groups through appropriate communication strategies (e.g., oral and education materials) to restore an individual(s) optimal functioning.</i>	040600
Knowledge of:	
1. Applicable methods and materials for education	040601
2. Appropriate documentation protocols	040602
3. Available support systems (e.g., psychosocial, community, family, and health care) related to rehabilitation, recovery, and performance	040603
4. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	040604
5. Learning process across the lifespan	040605
6. Psychology effects related to rehabilitation, recovery, and performance	040606
7. Referral resources	040607
Skill in:	
8. Communicating with appropriate professionals regarding referral and treatment for individuals	040608
9. Directing a referral to the appropriate professionals	040609
10. Identifying appropriate individuals to educate	040610
11. Indications for referral	040611
12. Providing guidance/counseling for the individual during the treatment, rehabilitation, and reconditioning process	040612
Domain 5: Organizational and professional health and well-being <i>Understanding and adhering to approved organizational and professional practices and guidelines to ensure individual and organizational well-being.</i>	050000
<i>Task 1: Apply basic internal business functions (e.g., business planning, financial operations, staffing) to support individual and organizational growth and development.</i>	050100
Knowledge of:	
1. Appropriate computer software applications	050101
2. Credentialing systems and general requirements for pertinent professions	050102
3. Facility design and operation	050103
4. Human resource management	050104
5. Institutional budgeting and procurement process	050105
6. Institutional and federal employment regulations (e.g., EEOC, ADA, and Title IX)	050106
7. Management techniques	050107
8. Leadership styles	050108
9. Revenue generation strategies	050109
10. Staff scheduling, patient flow, and allocation of resources	050110
11. Storage and inventory procedures	050111
12. Strategic planning and goal setting	050112
Skill in:	
13. Facility design, operation, and management (e.g., planning, organizing, designing, scheduling, coordinating, budgeting)	050113

Description	Classification Code
14. Managing financial resources (e.g., planning, budgeting, resource allocation, revenue generation)	050114
15. Managing human resources (e.g., delegating, planning, staffing, hiring, firing, and conducting performance evaluations)	050115
16. Using computer software applications (e.g., word processing, data base spreadsheet, and Internet applications)	050116
<i>Task 2: Apply basic external business functions (e.g., marketing and public relations) to support organizational sustainability, growth, and development.</i>	050200
Knowledge of:	
1. Appropriate computer software applications	050201
2. Credentialing systems and general requirements for pertinent professions	050202
3. Facility design and operation	050203
4. Human resource management	050204
5. Institutional budgeting and procurement process	050205
6. Institutional and federal employment regulations (e.g., EEOC, ADA, and Title IX)	050206
7. Management techniques	050207
8. Leadership styles	050208
9. Revenue generation strategies	050209
10. Staff scheduling, patient flow, and allocation of resources	050210
11. Storage and inventory procedures	050211
12. Strategic planning and goal setting	050212
Skill in:	
13. Facility design, operation, and management (e.g., planning, organizing, designing, scheduling, coordinating, budgeting)	050213
14. Managing financial resources (e.g., planning, budgeting, resource allocation, revenue generation)	050214
15. Managing human resources (e.g., delegating, planning, staffing, hiring, firing, and conducting performance evaluations)	050215
16. Using computer software applications (e.g., word processing, data base spreadsheet, and Internet applications)	050216
<i>Task 3: Maintain records and documentation that comply with organizational, association, and regulatory standards to provide quality of care and to enable internal surveillance for program validation and evidence-based interventions.</i>	050300
Knowledge of:	
1. Appropriate computer software applications	050301
2. Credentialing systems and general requirements for pertinent professions	050302
3. Criteria for determining the legal standard of care in athletic training (e.g., state statutes and regulations, professional standards and guidelines, publications, customs, practices, and societal expectations)	050303
4. Evidence-based practice, epidemiology studies, and clinical outcomes assessment	050304
5. Federal and state statutes, regulations, and adjudication that apply to the practice and/or organization and administration of athletic training (e.g., OSHA, DEA, Title IX, Civil Rights Act, HIPAA, Buckley Amendment, labor practices, patient confidentiality, insurance, and record keeping)	050305
6. Guidelines and regulations for decreasing exposure to environmental hazards	050306
7. Guidelines for development of risk management policies and procedures	050307
8. Institutional drug testing and substance abuse policies	050308

Description	Classification Code
9. Institutional, governmental, and appropriate organizational guidelines for safety, health care delivery, and legal compliance	050309
10. Institutional review boards, policies, and procedures regarding informed consent guidelines	050310
11. Institutional risk management policies and procedures	050311
12. Prescreening participation guidelines	050312
13. Relevant policy and position statements of appropriate organizations (e.g., ACSM, AOASM, AOSSM, AMSSM, NCAA, NATA, NFHSA, NAIA, USOC)	050313
14. Standard medical terminology and nomenclature	050314
15. State statutes, regulations, and adjudication that directly govern the practice of athletic training (e.g. state practice and title acts, state professional conduct and misconduct acts, liability and negligence)	050315
16. State statutes, regulations, and adjudication governing other professions which impact the practice of athletic training (e.g., medicine, physical therapy, nursing, pharmacology)	050316
Skill in:	
17. Creating and completing the documentation process	050317
18. Obtaining, interpreting, evaluating, and applying relevant research data, literature, and/or other forms of information	050318
19. Obtaining, interpreting, evaluating, and applying relevant policy and position statements	050319
20. Interacting with appropriate administration leadership	050320
21. Researching practice methods and procedures	050321
22. Researching professional standards and guidelines (e.g., NATABOC, NATA, state organizations)	050322
23. Using computer software applications (e.g., word processing, data base spreadsheet, and Internet applications)	050323
Task 4: <i>Demonstrate appropriate planning for coordination of resources (e.g., personnel, equipment, liability, scope of service) in event medical management and emergency action plans.</i>	050400
Knowledge of:	
1. Appropriate medical equipment and supplies	050401
2. Criteria for determining the legal standard of care in athletic training (e.g., state statutes and regulations, professional standards and guidelines, publications, customs, practices, and societal expectations)	050402
3. Federal and state statutes, regulations, and adjudication that apply to the practice and/or organization and administration of athletic training (e.g., OSHA, DEA, Title IX, Civil Rights Act, HIPAA, Buckley Amendment, labor practices, patient confidentiality, insurance, and record keeping)	050403
4. Institutional drug testing and substance abuse policies	050404
5. Institutional, governmental, and appropriate organizational guidelines for safety, health care delivery, and legal compliance	050405
6. Institutional review boards, policies, and procedures regarding informed consent guidelines	050406
7. Institutional risk management policies and procedures	050407
8. Prescreening participation guidelines	050408
9. Reimbursement issues	050409
10. Staff preparedness	050410

Description	Classification Code
11. State statutes, regulations, and adjudication that directly govern the practice of athletic training (e.g., state practice and title acts, state professional conduct and misconducts acts, liability and negligence)	050411
12. State statutes, regulations, and adjudication governing other professions that impact the practice of athletic training (e.g., medicine, physical therapy, nursing, pharmacology)	050412
13. Site-specific access issues	050413
Skill in:	
14. Creating and completing the documentation process	050414
15. Interacting with appropriate administration leadership	050415
16. Obtaining, interpreting, evaluating, and applying relevant policy and position statements	050416
17. Researching practice methods and procedures	050417
18. Researching professional standards and guidelines (e.g., NATABOC, NATA, state organizations)	050418
19. Using computer software applications (e.g., word processing, data base spreadsheet, and Internet applications)	050419
<i>Task 5: Demonstrate an understanding of statutory and regulatory provisions and professional standards of the practice of Athletic Training in order to provide for the safety and welfare of individual(s) and groups.</i>	050500
Knowledge of:	
1. Appropriate equipment and facility inspection procedures and documentation	050501
2. Criteria for determining the legal standard of care in athletic training (e.g., state statutes and regulations, professional standards and guidelines, publications, customs, practices, and societal expectations)	050502
3. Federal and state statutes, regulations, and adjudication which apply to the practice and/or organization and administration of athletic training (e.g., OSHA, DEA, Title IX, Civil Rights Act, HIPAA, Buckley Amendment, labor practices, patient confidentiality, insurance, record keeping)	050503
4. Institutional, professional, and governmental guidelines for maintenance of facilities and equipment	050504
5. Manufacturer's operational guidelines	050505
6. Safe playing and treatment environments	050506
7. State statutes, regulations, and adjudication that directly govern the practice of athletic training (e.g, state practice and title acts, state professional conduct and misconducts acts, liability and negligence)	050507
8. State statutes, regulations, and adjudication governing other professions which impact the practice of athletic training (e.g., medicine, physical therapy, nursing, pharmacology)	050508
Skill in:	
9. Researching and applying state and federal statutes, regulations, and adjudications	050509
10. Researching professional standards and guidelines (e.g., NATABOC, NATA, state organizations)	050510
11. Researching practice methods and procedures	050511
<i>Task 6: Develop a support/referral process for interventions to address unhealthy lifestyle behaviors.</i>	050600
Knowledge of:	
1. Appropriate professional behaviors	050601

Description	Classification Code
2. Credentialing systems and general requirements for health care professions	050602
3. Community resources	050603
4. Confidentiality policies	050604
5. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts, and oral communication)	050605
6. Effective meeting planning	050606
7. Federal and state statutes, regulations, and adjudication which apply to the practice and/or organization and administration of athletic training (e.g., OSHA, DEA, Title IX, Civil Rights Act, HIPAA, Buckley Amendment, labor practices, patient confidentiality, insurance, record keeping)	050607
8. Institutional and governmental regulations regarding drug use, substance abuse, and mental illness	050608
9. Institutional chain of command	050609
10. Role and scope of practice of various health care professionals	050610
Skill in:	
11. Communicating with appropriate professionals regarding referral and treatment for individuals	050611
12. Directing a referral to the appropriate professionals	050612
13. Identifying appropriate individuals to educate	050613
14. Indications for referral	050614
15. Interpreting standard medical terminology and nomenclature for appropriate individuals	050615
16. Mitigating conflict	050616
17. Networking and recruiting qualified medical team members	050617
18. Nurturing professional relationships	050618
19. Providing guidance/counseling for the individual during the treatment, rehabilitation, and reconditioning process	050619
20. Respecting diversity of opinions and positions	050620

Item Analysis Explanation

The item difficulty is the percentage of candidates who answered the question correctly. The recommended range for item difficulty set forth by CASTLE Worldwide, Inc., is between 92.00 (easy) and 30.00 (difficult). However, there are some instances where ratings slightly above 92.00 or below 30.00 are acceptable.

The discriminating power is a rating that denotes whether or not the question can discriminate between those candidates who possess the minimally acceptable level of knowledge to become certified and those candidates who do not. CASTLE's recommendation for the discriminating power is a positive rating at or above 0.15. The discriminating power is stronger the closer it nears 1.

Item: ITEM001 Category: Proj_Org&Admin Classification: 0603

Item Difficulty: 47.22

Discriminating Power: 0.051

Weighting – Correct: 1.000

Incorrect: 0.000

Response (* = Key)	Number Choosing	Percent Choosing	Mean of Scores	Distractor Effectiveness
A	91	50.56	118.88	-.04
B	1	0.56	111.00	-.04
C*	85	47.22	120.69	0.08
D	3	1.67	107.00	-0.11
E	0	0.00	0.00	0.00

We require that the distractor effectiveness is positive for the key.

The asterisk here denotes the key.

The data in this column represent the average score that individuals who chose this response option received on the overall examination.

When the data in this column are lower than 3%, the accompanying distractor might not be plausible. These particular data are suspicious because there were more respondents that chose distractor A than the key. A key verification and distractor B and D revision is necessary in this situation.

Item: ITEM008 Category: Document Classification: 0501

Item Difficulty: 69.49

Weighting – Correct: 1.000

Discriminating Power: 0.305

Incorrect: 0.000

Response (* = Key)	Number Choosing	Percent Choosing	Mean of Scores	Distractor Effectiveness
A	25	14.12	111.68	-0.22
B*	123	69.49	122.38	0.28
C	16	9.04	113.50	-0.13
D	13	7.34	115.85	-0.07
E	0	0.00	0.00	0.00

The statistics for this particular item are considered acceptable for the following reasons:

- The difficulty is neither too high or too low
- The discriminating power is substantially higher than 0.15
- No response options were chosen less than 3% of the time
- A large majority of examinees chose the correct answer
- The distractor effectiveness for the key is positive

NOTE: There is no distractor E with this item.

Glossary

Anchor Exam An examination form that sets the standard of passing for a given series of examinations.

Certification Authorized declaration validating that one has fulfilled the requirements of a given profession and may practice in the profession.

Classification System A systematic arrangement of examination content in groups or categories according to specified criteria. CASTLE Worldwide, Inc. uses a six digit coding system to represent the domain, task, and knowledge or skill a specific question covers.

Computer Based Testing (CBT) Refers to delivering examinations via computers. The examination questions are presented to candidates on a computer screen. Candidates choose their answers using the computer's mouse or keyboard, and their responses are recorded by the computer, rather than on an answer sheet.

Content Domain A body of knowledge, skills, and abilities defined so that items of knowledge or particular tasks can be clearly identified as included or excluded from the domain.

Cut Score A specified point on a score scale at or above which candidates pass or are accepted and below which candidates fail or are rejected. This is also sometimes called the passing score or passing point.

Discrimination The ability of a test or a test question to differentiate among qualified and unqualified individuals by measuring the extent to which the individual display the attribute that is being measured by the test or test question.

Distractor The options that are not correct answers. Distractors must be plausible; hence, they distract the less qualified test-taker from the correct answer.

Equating A process used to convert the score from one form of a test to the score of another form so that the scores are equivalent or parallel.

Equator Questions that are on all forms of an examination, including the anchor form. These questions are used to equate test forms.

Inter-rater Reliability Consistency of judgments made about candidates by raters or sets of raters.

Internet-Based Testing Computer-based testing. However, rather than send the examination to each testing center on computer media (compact disc), the examination is delivered via a secure, password-protected Web site. The examination and the candidate's answers are uploaded to the test provider's secure server. Test security is assured through configuration management, controlled loading, and availability.

Item A test question that consists of a stem, correct response, and distractors.

Item Analysis The process of assessing certain characteristics of test questions, specifically the question difficulty, the discrimination power, the candidates' mean scores, and the distractor effectiveness.

Item Difficulty The percentage of candidates answering a question correctly. This value can be computed to provide data about first-time candidates, retake candidates, ability level, etc.

Job Analysis Study Also known as role delineation study. The method of identifying the tasks performed for a specific job, or the knowledge, skills, and abilities required to perform a specific job.

Key The correct answer in a list of options.

Knowledge Statement An organized body of factual or procedural information is called knowledge.

Minimally Qualified Candidate An individual's competence in a particular job role can be seen as a continuum ranging (theoretically) from the complete lack of ability to the highest level of mastery. The term minimum competence suggests that the individual is capable of filling the role with sufficient mastery to not harm the public or the profession.

Options The list of possible answers for a question including the correct answer.

Performance Domain The major responsibilities or duties of a specific field of study. Each domain may be characterized as a major heading in an outline format and may include a brief behavioral description.

Psychometrics The design, administration, and interpretation of quantitative tests that measure psychological variables such as aptitude, intelligence, skill, and learning.

Raw Score The unadjusted score on a test, usually determined by counting the number of correct answers.

Reliability The reliability of a test refers to the consistency of the test result. We interpret the reliability of a test as a measure of the likelihood that if we gave the test again under the same conditions, we would then observe the same scores.

Role Delineation Study Also known as job analysis study. The method of identifying the tasks performed for a specific job or the knowledge, skills, and abilities required to perform a specific job.

Scaled Score A score to which raw scores are converted by numerical transformation (e.g. standardized scores).

Score Any specific number resulting from the assessment of an individual. A number that expresses accomplishment either absolutely in points earned or by comparison to a standard.

Scoring Formula The formula by which the raw score on a test is obtained. The simplest scoring formula is the raw score equals the number of questions answered correctly.

Skill Statement The proficient physical, verbal, or mental manipulation of data, people, or objects is called skill. Skill embodies observable, quantifiable, and measurable performance parameters and may be psychomotor or cognitive in nature.

Standard Error of Measurement The standard deviation of the hypothesized distribution of test score means if multiple samples from which to compute the mean were available. We interpret the standard error of mean as a measure of variability we would observe in multiple sample or test administrations.

Stem The body of the question including any scenarios or qualifying information.

Subject Matter Expert A person with expertise in a given field or profession. Subject matter experts are used to develop the content of examinations.

Task Statement A comprehensive statement of work activity that elaborates upon the performance or content domain. Each task statement details a particular work activity in such a way that the series of task statements will offer a comprehensive and detailed description of each performance domain. In particular, task statements should answer the following questions:

- **What** activity do you perform?
- **To Whom** or **To What** is your activity directed?
- **Why** do you perform this activity?
- **How** do you accomplish the activity?

Test Specification A content outline that specifies what proportion of the test questions will deal with each content area.

Validation The process of rating each test question in order to determine how important, critical, and frequently the content tested by a specific question is used for a specific job.

Validity Refers to the quality of the inferences made from a test score/result. If the purpose of a particular examination is to certify a minimally qualified candidate in a particular profession, then the question we ask is whether minimal qualification can be inferred from the examination. Alternatively, validity can be conceptualized as the accuracy of the test score.

Traditional definition: Are we measuring what we intend to measure?

Weighted Scoring Scoring in which the number of points awarded for a correct response is not the same for all questions on a test.



Item Writer: _____

Classification: _____

Cognitive Level: Recall
(Select One) Application
 Analysis

Multiple Choice Item – 5 Option

Stem:

Choose one.

Circle the correct answer.

A)	
B)	
C)	
D)	
E)	



Item Writer: _____

Classification: _____

Cognitive Level: Recall

(Select One) Application

Analysis

Multi-Select Item

Stem:

Choose all that apply.

A)	
B)	
C)	
D)	
E)	
F)	
G)	

Circle the correct answers.