



Education and Training Reference Guide
for Proposed Scope of Practice Changes
Specific to Nebraska Athletic Training

Reference Information

BOC Standards of Professional Practice

The primary purpose of the Practice Standards is to establish essential duties and obligations imposed by virtue of holding the ATC® credential. Compliance with the Practice Standards is mandatory for Athletic Trainers. The Practice Standards are published by the Board of Certification Inc. (BOC), which provides the certification program for the entry-level athletic training profession. The BOC also establishes both the standards for the practice of athletic training and the continuing education requirements for BOC Certified Athletic Trainers (ATs).

2020 Standards for Accreditation of Professional Athletic Training Programs

The Curricular Content section of the *2020 Standards* provides global expectations of the skills that the program must prepare its graduates to perform. The *2020 Standards* are based on evidence, continuous improvement, innovation, and current and future clinical practice needs, to ensure that accredited programs are preparing graduates that are ready to transition to autonomous practice, and to demonstrably raise expectations of learning for all students at the graduate level.

Athletic Training Education Competencies, 5th Edition

The 5th edition of the Athletic Training Education Competencies (Competencies) provides educational program personnel and others with the knowledge, skills, and clinical abilities to be mastered by students enrolled in professional athletic training education programs. Mastery of these Competencies provides the entry-level athletic trainer with the capacity to provide athletic training services to clients and patients of varying ages, lifestyles, and needs.

Practice Analysis, 7th Edition

The BOC Practice Analysis depicts the current knowledge and skills entry-level Athletic Trainers (ATs) possess within domains and tasks. Used as a resource to determine in what knowledge and skills entry-level ATs have been educated for the purpose of writing state and federal legislation.

Navigating the Document

Current athletic training statute and wording.

Proposed revisions to be made to statute.



Nebraska Statutes Pertaining to Athletic Training Proposed Scope of Practice Act Changes

38-403	Athletic injuries, defined.		Education and Training	
	Current	Proposed		
	Athletic injuries mean the types of musculoskeletal injury or common illness and conditions which athletic trainers are educated to treat or refer, incurred by athletes, which prevent or limit participation in sports or recreation.	38-403 Injuries and illnesses, defined. Means conditions and common illnesses which athletic trainers as a result of their education and training are qualified to provide care and make referrals to the appropriate health care professionals.	BOC Practice Analysis:	Domain 1, Task 0105 Domain 2, Task 0201, 0202, 0203, 0204 Domain 3, 0302, 0304 Domain 4, All
			BOC Standards:	Standards 2-6
			CAATE Edu Standards:	Standards 17, 18, 69-94
			NATA Education Competencies:	EBP-11 PHP- 5, 6, 9, 16, 45, 47 CE-22

Education and practice standards referenced to the proposed revisions. Click on a standard to be linked to the section of the document where it is found.

38-403 Athletic injuries, defined.		
Current	Proposed	Education and Training
<p>Athletic injuries mean the types of musculoskeletal injury or common illness and conditions which athletic trainers are educated to treat or refer, incurred by athletes, which prevent or limit participation in sports or recreation.</p>	<p>38-403 Injuries and illnesses, defined.</p> <p>Means conditions and common illnesses which athletic trainers as a result of their education and training are qualified to provide care and make referrals to the appropriate health care professionals.</p>	<p>BOC Practice Analysis: Domain 1, Task 0105 Domain 2, Task 0201, 0202, 0203, 0204 Domain 3, 0302, 0304 Domain 4, All</p>
		<p>BOC Standards: Standards 2-6</p>
		<p>CAATE Edu Standards: Standards 17, 18, 69-94</p>
		<p>NATA Education Competencies: EBP-11 PHP- 3, 5, 6, 9, 16, 17, 19, 32, 43, 45, 47 AC-10, 23, 24, 27, 34, 36b, 38, 39 TI-4, 5 CIP-4, 6 CE-22</p>

38-404 Athletic trainer, defined.		
Current	Proposed	Education and Training
<p>Athletic trainer means a person who is responsible for the prevention, emergency care, first aid, treatment, and rehabilitation of athletic injuries under guidelines established with a licensed physician and who is licensed to perform the functions set out in section 38-408. When athletic training is provided in a hospital outpatient department or clinic or an outpatient- based medical facility, the athletic trainer will perform the functions described in section 38-408 with a referral from a licensed physician for athletic training.</p>	<p>Athletic Trainer means a health care professional who is licensed to practice athletic training under the act and who under guidelines established with a licensed physician performs the functions outlined in section 38-405. When athletic training is provided in a hospital outpatient department or clinic or an outpatient-based medical facility, the athletic trainer will perform the functions described in section 38-405 with a referral from a licensed physician, osteopathic physician, podiatrist, advanced practice registered nurse, physician assistant, dentist, or chiropractor.</p>	<p>BOC Practice Analysis: Domain 4 Domain 5, Task 0503</p>
		<p>BOC Standards: Standard 1</p>
		<p>CAATE Edu Standards: Standards 66, 90</p>
		<p>NATA Education Competencies: PHP-7 AC-1 HA-15-18 PD-4,6 CIP-9</p>

38-405 Athletic training, defined.

Current	Proposed	Education and Training	
<p>Athletic training means the prevention, evaluation, emergency care, first aid, treatment, and rehabilitation of athletic injuries utilizing the treatments set out in section 38-408.</p>	<ul style="list-style-type: none"> Athletic training or practice of athletic training means providing the following regarding injuries and illnesses; Prevention and wellness promotion; 	BOC Practice Analysis:	Domain 1
		BOC Standards:	Standard 2
		CAATE Edu Standards:	Standards 78, 79, 80, 81, 83, 84, 85, 86, 87, 92
		NATA Educational Competencies:	PHP-1-49 CIP-3
	<ul style="list-style-type: none"> Examination, assessment and impression; <ul style="list-style-type: none"> Impression defined: The estimated identification of the disease underlying a patient's complaints based on the signs, symptoms, medical history and physical examination of the patient rather than on laboratory examination or medical imaging 	BOC Practice Analysis:	Domain 2
		BOC Standards:	Standard 4
		CAATE Edu Standards:	Standards 62, 69, 70, 71, 76, 77
		NATA Educational Competencies:	CE-1-23 AC-4-7 CIP-4-8
	<ul style="list-style-type: none"> Immediate and emergency care including the administration of emergency drugs. Drugs include those as defined in 38-2819 except for controlled substances; 	BOC Practice Analysis:	Domain 3
		BOC Standards:	Standard 3
		CAATE Edu Standards:	Standards 55, 70, 74, 75, 93, 94
		NATA Educational Competencies:	PHP-49 AC-8-42 TI-21-31 CIP-4-8
<ul style="list-style-type: none"> Therapeutic intervention/rehabilitation of injury and illness in the manner, means, and methods deemed necessary to affect care, rehabilitation, or function; 	BOC Practice Analysis:	Domain 4	
	BOC Standards:	Standard 5	
	CAATE Edu Standards:	Standards 62, 69, 73, 75, 76, 78	
	NATA Educational Competencies:	TI-1-31 CIP-4-8	
<ul style="list-style-type: none"> Therapeutic modalities including but not be limited to, physical modalities, mechanical modalities, water, heat, light, sound, cold, and electricity. 	BOC Practice Analysis:	Domain 4	
	BOC Standards:	Standard 5	
	CAATE Edu Standards:	Standards 62, 69, 73, 75, 76	
	NATA Educational Competencies:	TI-1-31 CIP-4-8	

<ul style="list-style-type: none"> Healthcare administration, risk management and professional responsibility; Pursuant to 38-2025 (18) the Practice of Medicine and Surgery, no athletic trainers shall hold themselves out to be a physician, surgeon, or qualified to prescribe medications. 	BOC Practice Analysis:	Domains 1, 5
	BOC Standards:	Standard 7
	CAATE Edu Standards:	Standards 56, 59, 61, 64, 65, 66, 67, 68, 80, 84, 85, 86, 88, 89, 90, 91, 92, 93, 94
	NATA Educational Competencies:	EBP-1-14 AC-1-3 HA-1-30 PD-1-12 CIP-9
	BOC Practice Analysis:	Domains 1, 5
	BOC Standards:	Standard 7
	CAATE Edu Standards:	Standards 61, 66, 75, 77, 90
	NATA Educational Competencies:	AC-1, 2 HA-1, 30 CE-22

38-407 Practice site, defined.	
Current	Proposed
Practice site means the location where the athletic trainer practices athletic training.	Strike section.

38-408 Athletic trainers; authorized physical modalities.	
Current	Proposed
<p>(1) Athletic trainers shall be authorized to use the following physical modalities in the treatment of athletic injuries under guidelines established with a licensed physician:</p> <ul style="list-style-type: none"> (a) Application of electrotherapy; (b) Application of ultrasound; (c) Use of medical diathermies; (d) Application of infrared light; and (e) Application of ultraviolet light. <p>(2) The application of heat, cold, air, water, or exercise shall not be restricted by the Athletic Training Practice Act.</p>	<p>Revise and move to section 38-405, under the fifth bullet point reading as: "Therapeutic modalities including but not be limited to, physical modalities, mechanical modalities, water, heat, light, sound, cold, and electricity;"</p>

38-409 License required; exceptions.	
Current	Proposed
No person shall be authorized to perform the physical modalities set out in section 38-408 on any person unless he or she first obtains a license as an athletic trainer or unless such person is licensed as a physician, osteopathic physician, chiropractor, nurse, physical therapist, or podiatrist. No person shall hold himself or herself out to be an athletic trainer unless licensed under the Athletic Training Practice Act.	No person shall hold himself or herself out as an athletic trainer in this state unless such person has been licensed as such under the provisions of sections 38-401 to 38-414.

38-410 Licensure requirements; exemptions.	
Current	Proposed
<p>(1) An individual who accompanies an athletic team or organization from another state or jurisdiction as the athletic trainer is exempt from the licensure requirements of the Athletic Training Practice Act.</p> <p>(2) An individual who is a graduate student in athletic training and who is practicing under the supervision of a licensed athletic trainer is exempt from the licensure requirements of the Athletic Training Practice Act.</p>	<p>(1) An individual who accompanies an athletic team or organization from another state or jurisdiction as the athletic trainer is exempt from the licensure requirements of the Athletic Training Practice Act.</p> <p>(2) An athletic training student who is enrolled in an accredited athletic training education program or in good standing, and who is practicing under the supervision of a licensed athletic trainer is exempt from the licensure requirements of the Athletic Training Practice Act.</p>

38-411 Applicant for licensure; qualifications; examination.

Current

- (1) An applicant for licensure as an athletic trainer shall at the time of application provide proof to the department that he or she meets one or more of the following qualifications:
- (a) Graduation after successful completion of the athletic training curriculum requirements of an accredited college or university approved by the board; or
 - (b) Graduation with four-year degree from an accredited college or university and completion of at least two consecutive years, military duty excepted, as a student athletic trainer under the supervision of an athletic trainer approved by the board.
- (2) In order to be licensed as an athletic trainer, an applicant shall, in addition to the requirements of subsection (1) of this section, successfully complete an examination approved by the board.

Proposed

- (1) An applicant for licensure as an athletic trainer shall at the time of application provide proof to the department that he or she meets one or more of the following qualifications:
- (a) Graduation after successful completion of the athletic training curriculum requirements of an accredited college or university approved by the board; or
 - (b) Graduation with four-year degree from an accredited college or university and completion of at least two consecutive years, military duty excepted, as an athletic training student under the supervision of an athletic trainer approved by the board.
- (2) In order to be licensed as an athletic trainer, an applicant shall, in addition to the requirements of subsection (1) of this section, successfully complete an examination approved by the board.

References to Follow



Board of Certification, Inc.

Practice Analysis, 7th edition

outline: domains and tasks

effective for april 2017 exam and January 1, 2018 continuing education

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This document provides domain and task level information only. The full practice analysis identifies knowledge and skills for each task and an in-depth look at the study and process.

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Henderson, J. The 2015 Athletic Trainer Practice Analysis Study. Omaha, NE: Board of Certification; 2015.

domain 1

title	description
Injury and Illness Prevention and Wellness Promotion	Promoting healthy lifestyle behaviors with effective education and communication to enhance wellness and minimize the risk of injury and illness
summary	
<p>Injury prevention is arguably one of the most encompassing domains of the athletic training profession. Injury prevention not only reduces morbidity and cost, it increases quality of life. It requires general subject knowledge (anatomy, exercise physiology, biomechanics and health) and specific workplace knowledge (sport requirements, equipment fitting, OSHA regulations and environmental conditions). This domain is often synonymous with injury risk reduction or risk management. In this process risks are identified, interventions or plans are implemented, results are reviewed and the plan is further revised.</p> <p>ATs identify and understand intrinsic (patient history, demographics, education) and extrinsic factors (environmental, social, sport specific) that are relevant to the client, patient or population. While some risk factors are static or unchangeable, such as age or ethnic background, other factors may be within the patient's or client's ability to change, such as diet and exercise.</p> <p>Evidence-based medicine, metrics and research are important to all domains, including injury prevention. Epidemiological studies help identify the prevalence of an injury or disease within a population or group. ATs are proficient in using national and local information to better serve their population and identify trends.</p> <p>This domain also includes concepts of health and wellness promotion. While the definition of wellness is varied, an accepted definition is, "Wellness is a multidimensional state of being describing the existence of positive health in an individual as exemplified by quality of life and a sense of well-being." ATs promote a healthy lifestyle and environment to all clientele and patients. The AT understands the role of nutrition in performance and in the injuries and illnesses associated with deficient nutrition. A holistic approach includes promotion of physical, social, intellectual, emotional, mental and spiritual wellness.</p> <p>ATs influence more than just individuals, patients or a team. Many fill the role of a community advocate involved with promoting public health initiatives. As an example, ATs have been instrumental in educating the public about the consequences of traumatic brain injury (physical, mental, academic, social) beyond the initial injury.</p>	
task	descriPtion
0101	Identify risk factors by administering assessment, pre-participation examination and other screening instruments, and reviewing individual and group history and injury surveillance data.
0102	Implement plans to aid in risk reduction using currently accepted and applicable guidelines.
0103	Educate individuals and stakeholders about the appropriate use of personal equipment.
0104	Minimize the risk of injury and illness by monitoring and implementing plans to comply with regulatory requirements and standard operating procedures for physical environments and equipment.
0105	Facilitate individual and group safety by monitoring and responding to environmental conditions (e.g., weather, surfaces and client work setting).
0106	Optimize wellness (e.g., social, emotional, spiritual, environmental, occupational, intellectual, physical) for individuals and groups.

domain 2

title	descriPtion
Examination, Assessment and Diagnosis	Implementing systematic, evidence-based examinations and assessments to formulate valid clinical diagnoses and determine patients' plan of care
summary	
<p>Following an evidence-based model, the AT conducts examinations and assessments of injuries and illnesses to form relevant related diagnoses. Evidence-based clinical decision-making relies on clinical expertise that integrates athletic training knowledge and skills, clinical experience, current best evidence, clinical circumstances and patient and societal values. As part of the examination, assessment and diagnosis process, the AT, with the understanding of the injury pathology and any comorbidities of the affected individual, utilizes clinical acumen to obtain a thorough patient history, problem-solve through confounding data, exclude and confirm varied presentations of injury and illness, and prioritize relevant examination, assessment and diagnostic techniques.</p>	
<p>The AT documents clinical findings, diagnoses, counseling and referrals in accordance with established practices and in compliance with federal, state and local laws. The AT continually assesses and reassesses the data required to confirm or exclude the provisional diagnosis; determines if further physical examination and diagnostic testing are required; establishes a final diagnosis with targeted treatment strategies; and refers to other healthcare professionals when necessary.</p>	
task	descriPtion
0201	Obtain an individual's history through observation, interview and review of relevant records to assess injuries and illnesses and to identify comorbidities.
0202	Perform a physical examination that includes diagnostic testing to formulate differential diagnoses.
0203	Formulate a clinical diagnosis by interpreting history and the physical examination to determine the appropriate course of action.
0204	Interpret signs and symptoms of injuries, illnesses or other conditions that require referral, utilizing medical history and physical examination to ensure appropriate care.
0205	Educate patients and appropriate stakeholders about clinical findings, prognosis and plan of care to optimize outcomes and encourage compliance.

domain 3

title	descriPtion
Immediate and Emergency Care	Integrating best practices in immediate and emergency care for optimal outcomes
summary	
<p>The profession of athletic training is unique in that the Athletic Trainer is often present at the time of an injury or emergency. ATs have a vast knowledge of medical conditions that can quickly become emergencies, and because ATs are often on-site, they are the primary healthcare professionals qualified to intervene. ATs manage many injuries that are considered relatively minor; however, ATs are frequently challenged to react and respond to a wide variety of unpredictable emergency situations. These immediate and emergency injuries and illnesses can occur during any physical activity, thus requiring knowledge and skill in the preparation, implementation and management of emergency situations.</p>	
<p>ATs have a responsibility to identify and use evidence-based standards of care in preparation, implementation and management of emergency situations. The preparation begins prior to an immediate and emergency situation through the development of an emergency action plan (EAP) identifying emergency personnel, equipment, transportation and communication. ATs have a vast knowledge of medical conditions that can quickly become emergencies, such as asthma, sickle cell trait, hypertension and diabetes. Additionally, they have extensive knowledge of environmental conditions, such as heat, cold and lightning.</p>	
<p>ATs practice in various settings, and maintain high level of preparation and proficiency in all aspects of immediate and emergency care. This ability is critical to minimizing risk to the injured participant.</p>	
task	descriPtion
0301	Establish EAPs to guide appropriate and unified response to events and optimize outcomes.
0302	Triage to determine if conditions, injuries or illnesses are life-threatening.
0303	Implement appropriate emergency and immediate care procedures to reduce the risk of morbidity and mortality.
0304	Implement referral strategies to facilitate the timely transfer of care.

domain 4

title	descriPtion
Therapeutic Intervention	Rehabilitating and reconditioning injuries, illnesses and general medical conditions with the goal of achieving optimal activity level based on core concepts (i.e., knowledge and skillsets fundamental to all aspects of therapeutic interventions) using the applications of therapeutic exercise, modality devices and manual techniques
summary	
<p>ATs routinely provide injury-prevention applications; however, when an injury or illness occurs, the AT's additional responsibilities include restoration of the patient to an optimal level. Achieving this goal requires that the athletic training clinician has a solid knowledge base and has mastered a specific skill set. Some examples of these abilities include examination; assessment; communication; knowledge of injury and common surgical techniques; application of currently acceptable techniques; and planning for and progressing the patient in a treatment, rehabilitation and reconditioning program that achieves the goal of optimal patient restoration.</p>	
<p>ATs possess knowledge of the pathophysiology of systemic illness, communicable diseases, infections and general medical pathology. Furthermore, ATs are able to differentiate pathophysiology from normal physiological function and are aware of appropriate referral and treatments for optimal treatment outcomes for these conditions.</p>	
<p>Working within their state's practice act and <i>BOC Standards of Professional Practice</i>, ATs provide services to patients under the direction of or in collaboration with a physician. ATs are aware of the legal boundaries of these practice regulations and are bound to honor them. The AT provides regular and pertinent communication with the prescribing physician and other healthcare professionals who are involved in the patient's care. The AT examines and assesses the patient to develop a plan of care. This plan of care includes the implementation and use of currently-accepted treatment techniques, practices and procedures to achieve short- and long-term goals that have been developed as part of the treatment plan. Protection from additional insult and appropriate steps toward optimal recovery are included in the AT's plan and execution of care.</p>	
<p>ATs select specific treatment applications based on current evidence of efficacy and benefit, healthcare practice standards and rationale founded on evidence-based concepts. The AT possesses knowledge of manual techniques and orthotic devices, as well as knowledge of the theoretical and evidence-based findings regarding their principles, applications and physiological effects on the various body systems. Within the Therapeutic Intervention domain lie a number of task categories that are integral segments of knowledge and skills involved in returning an injured patient to full, optimal function.</p>	
task	descriPtion
0401	Optimize patient outcomes by developing, evaluating and updating the plan of care.
0402	Educate patients and appropriate stakeholders using pertinent information to optimize treatment and rehabilitation outcomes.
0403	Administer therapeutic exercises to patients using appropriate techniques and procedures to aid recovery to optimal function.
0404	Administer therapeutic devices to patients using appropriate techniques and procedures to aid recovery to optimal function.
0405	Administer manual techniques to patients using appropriate methods and procedures to aid recovery to optimal function.
0406	Administer therapeutic interventions for general medical conditions to aid recovery to optimal function.
0407	Determine patients' functional status using appropriate techniques and standards to return to optimal activity level.

domain 5

title		descriPtion
Healthcare Administration and Professional Responsibility		Integrating best practices in policy construction and implementation, documentation and basic business practices to promote optimal patient care and employee well-being
summary		
<p>Healthcare is the largest and most regulated industry within the United States. The medical care of individuals revolves around the concept of teamwork. The AT plays a critical role within the team. The awareness of each medical care professional's roles and responsibilities helps form a patient-centered care team. No single provider, or AT, can provide every care need for a patient.</p> <p>ATs work in a variety of settings that require the management of individuals, various policies, risk, regulations and legislative compliance. ATs, across the various professional settings, understand and collect diverse data and outcomes measures. Before deciding which data and outcomes measure to monitor, the AT determines the key performance indicators for his or her organization (e.g., return to activity days, number of patients seen, revenue generated, changes in production) and identifies personal and stakeholder requisites.</p> <p>Additionally, the AT engages in ongoing professional education to ensure the care provided by the organization and healthcare professionals adheres to best practices. For organizations and professions to maintain financial health, the AT must demonstrate the ability to utilize basic internal business skills including strategic planning, human resource management, budgeting and facility design. ATs must be able to apply external business skills, such as marketing and public relations, to support organizational sustainability, growth and development. ATs require various criteria for documentation of patient care and treatment, depending on setting and state requirements. Using appropriate documentation, no matter the athletic training setting, permits meeting of state, professional and ethical standards of practice.</p>		
task	descriPtion	
0501	Evaluate organizational, personal and stakeholder outcomes.	
0502	Develop policies, procedures and strategies to address risks and organizational needs.	
0503	Practice within local, state and national regulations, guidelines, recommendations and professional standards.	
0504	Use established documentation procedures to ensure best practice.	

WeiGhtinG of domains

The PA7 defines the current entry-level knowledge, skills and abilities required for practice in the profession of athletic training. The practice analysis serves as the blueprint for determining the content of the exam. Exam questions represent all five domains of athletic training, with weighting distributed across domains as indicated in the table below.

domain	Percent of Questions on exam
Injury and Illness Prevention and Wellness Promotion	19.8
Examination, Assessment and Diagnosis	24.3
Immediate and Emergency Care	15.5
Therapeutic Intervention	27.4
Healthcare Administration and Professional Responsibility	13.0
Sum	100.0



BOARD OF CERTIFICATION
FOR THE ATHLETIC TRAINER

BOC Standards of Professional Practice

Version 3.2 - Published October 2018
Implemented January 2019



Introduction ||

The *BOC Standards of Professional Practice* is reviewed by the Board of Certification, Inc. (BOC) Standards Committee and recommendations are provided to the BOC Board of Directors. The BOC Standards Committee is comprised of 5 Athletic Trainer members and 1 Public member. The BOC Board of Directors approves the final document. The BOC Board of Directors includes 6 Athletic Trainer Directors, 1 Physician Director, 1 Public Director and 1 Corporate/Educational Director.

The BOC certifies Athletic Trainers (ATs) and identifies, for the public, quality healthcare professionals through a system of certification, adjudication, standards of practice and continuing competency programs. ATs are healthcare

professionals who collaborate with physicians to optimize activity and participation of patients and clients. Athletic training encompasses the prevention, diagnosis and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities.

The BOC is the only accredited certification program for Athletic Trainers in the United States. Every 5 years, the BOC must undergo review and re-accreditation by the National Commission for Certifying Agencies (NCCA). The NCCA is the accreditation body of the Institute of Credentialing Excellence.

The *BOC Standards of Professional Practice* consists of 2 sections:

I. Practice Standards

II. Code of Professional Responsibility



I. Practice Standards

Preamble

The primary purpose of the Practice Standards is to establish essential duties and obligations imposed by virtue of holding the ATC® credential. Compliance with the Practice Standards is mandatory.

The BOC does not express an opinion on the competence or warrant job performance of credential holders; however, every Athletic Trainer and applicant must agree to comply with the Practice Standards at all times.

Standard 1

Direction

The Athletic Trainer renders service or treatment under the direction of, or in collaboration with a physician, in accordance with their training and the state's statutes, rules and regulations.

Standard 2

Prevention

The Athletic Trainer implements measures to prevent and/or mitigate injury, illness and long term disability.

Standard 3

Immediate Care

The Athletic Trainer provides care procedures used in acute and/or emergency situations, independent of setting.

Standard 4

Examination, Assessment and Diagnosis

The Athletic Trainer utilizes patient history and appropriate physical examination procedures to determine the patient's impairments, diagnosis, level of function and disposition.

Standard 5

Therapeutic Intervention

The Athletic Trainer determines appropriate treatment, rehabilitation and/or reconditioning strategies. Intervention program objectives include long and short-term goals and an appraisal of those which the patient can realistically be expected to achieve from the program. Appropriate patient-centered outcomes assessments are utilized to document efficacy of interventions.

Standard 6

Program Discontinuation

The Athletic Trainer may recommend discontinuation of the intervention program at such time the patient has received optimal benefit of the program. A final assessment of the patients' status is included in the discharge note.

Standard 7

Organization and Administration

The Athletic Trainer documents all procedures and services in accordance with local, state and federal laws, rules and guidelines.

II. Code of Professional Responsibility ||

Preamble

The Code of Professional Responsibility (Code) mandates that BOC credential holders and applicants act in a professionally responsible manner in all athletic training services and activities. The BOC requires all Athletic Trainers and applicants to comply with the Code. The BOC may discipline, revoke or take other action with regard to the application or certification of an individual that does not adhere to the Code. The *Professional Practice and Discipline Guidelines and Procedures* may be accessed via the BOC website, www.bocatc.org.



Patient Care Responsibilities

The Athletic Trainer or applicant:

- 1.1 Renders quality patient care regardless of the patient's age, gender, race, religion, disability, sexual orientation, or any other characteristic protected by law
- 1.2 Protects the patient from undue harm and acts always in the patient's best interests and is an advocate for the patient's welfare, including taking appropriate action to protect patients from healthcare providers or athletic training students who are, impaired or engaged in illegal or unethical practice
- 1.3 Demonstrates sound clinical judgment that is based upon current knowledge, evidence-based guidelines and the thoughtful and safe application of resources, treatments and therapies
- 1.4 Communicates effectively and truthfully with patients and other persons involved in the patient's program, while maintaining privacy and confidentiality of patient information in accordance with applicable law
 - 1.4.1 Demonstrates respect for cultural diversity and understanding of the impact of cultural and religious values
- 1.5 Develops and maintains a relationship of trust and confidence with the patient and/or the parent/guardian of a minor patient and does not exploit the relationship for personal or financial gain
- 1.6 Does not engage in intimate or sexual activity with a patient and/or the parent/guardian of a minor patient
- 1.7 Informs the patient and/or the parent/guardian of a minor patient of any risks involved in the treatment plan
 - 1.7.1 Does not make unsupported claims about the safety or efficacy of treatment



Competency

The Athletic Trainer or applicant:

- 2.1 Engages in lifelong, professional and continuing educational activities to promote continued competence
- 2.2 Complies with the most current BOC recertification policies and requirements



Professional Responsibility

The Athletic Trainer or applicant:

- 3.1 Practices in accordance with the most current BOC Practice Standards
- 3.2 Practices in accordance with applicable local, state and/or federal rules, requirements, regulations and/or laws related to the practice of athletic training
- 3.3 Practices in collaboration and cooperation with others involved in a patient's care when warranted; respecting the expertise and medico-legal responsibility of all parties
- 3.4 Provides athletic training services only when there is a reasonable expectation that an individual will benefit from such services
- 3.5 Does not misrepresent in any manner, either directly or indirectly, their skills, training, professional credentials, identity or services or the skills, training, credentials, identity or services of athletic training
 - 3.5.1 Provides only those services for which they are prepared and permitted to perform by applicable local, state and/or federal rules, requirements, regulations and/or laws related to the practice of athletic training

- 3.6 Does not guarantee the results of any athletic training service
- 3.7 Complies with all BOC exam eligibility requirements
- 3.8 Ensures that any information provided to the BOC in connection with exam eligibility, certification recertification or reinstatement including but not limited to, exam applications, reinstatement applications or continuing education forms, is accurate and truthful
- 3.9 Does not possess, use, copy, access, distribute or discuss certification exams, self-assessment and practice exams, score reports, answer sheets, certificates, certificant or applicant files, documents or other materials without proper authorization
- 3.10 Takes no action that leads, or may lead, to the conviction, plea of guilty or plea of nolo contendere (no contest) to any felony or to a misdemeanor related to public health, patient care, athletics or education; this includes, but is not limited to: rape; sexual abuse or misconduct; actual or threatened use of violence; the prohibited sale or distribution of controlled substances, or the possession with intent to distribute controlled substances; or improper influence of the outcome or score of an athletic contest or event
- 3.11 Reports any suspected or known violation of applicable local, state and/or federal rules, requirements, regulations and/or laws by him/herself and/or by another Athletic Trainer that is related to the practice of athletic training
- 3.12 Reports any criminal convictions (with the exception of misdemeanor traffic offenses or traffic ordinance violations that do not involve the use of alcohol or drugs) and/or professional suspension, discipline or sanction received by him/herself or by another Athletic Trainer that is related to athletic training
- 3.13 Cooperates with BOC investigations into alleged illegal or unethical activities. Cooperation includes, but is not limited to, providing candid, honest and timely responses to requests for information
- 3.14 Complies with all confidentiality and disclosure requirements of the BOC and existing law
- 3.15 Does not endorse or advertise products or services with the use of, or by reference to, the BOC name without proper authorization
- 3.16 Complies with all conditions and requirements arising from certification restrictions or disciplinary actions taken by the BOC, including, but not limited to, conditions and requirements contained in decision letters and consent agreements entered into pursuant to Section 4 of the *BOC Professional Practice and Discipline Guidelines and Procedures*.
- 3.17 Fulfills financial obligations for all BOC billable goods and services provided.

Code
4

Research

The Athletic Trainer or applicant who engages in research:

- 4.1 Conducts research according to accepted ethical research and reporting standards established by public law, institutional procedures and/or the health professions
- 4.2 Protects the human rights and well-being of research participants
- 4.3 Conducts research activities intended to improve knowledge, practice, education, outcomes and/or public policy relative to the organization and administration of health systems and/or healthcare delivery

Code
5

Social Responsibility

The Athletic Trainer or applicant:

- 5.1 Strives to serve the profession and the community in a manner that benefits society at large
- 5.2 Advocates for appropriate health care to address societal health needs and goals

Code
6

Business Practices

The Athletic Trainer or applicant:

- 6.1 Does not participate in deceptive or fraudulent business practices
- 6.2 Seeks remuneration only for those services rendered or supervised by an AT; does not charge for services not rendered
 - 6.2.1 Provides documentation to support recorded charges
 - 6.2.2 Ensures all fees are commensurate with services rendered
- 6.3 Maintains adequate and customary professional liability insurance
- 6.4 Acknowledges and mitigates conflicts of interest

BOC VISION

The BOC exists so that healthcare professionals worldwide have access to globally recognized standards of competence and exceptional credentialing programs that support them in the protection of the public and the provision of excellent patient care.

BOC MISSION

To provide exceptional credentialing programs for healthcare professionals to assure protection of the public.

BOC VALUES

Integrity, Professionalism, Fairness, Transparency, Service

The BOC, a national credentialing agency, has been certifying Athletic Trainers and identifying, for the public, quality healthcare professionals with certainty since 1969.

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Commission on Accreditation of Athletic Training Education
2020 Standards for Accreditation of Professional Athletic Training Programs
Master's Degree Programs
Adoption date: January 9, 2018
Effective date: July 1, 2020

SECTION I: PROGRAM DESIGN AND QUALITY

Standard 1 The program has a written **mission** statement that addresses the **professional preparation of athletic trainers** and aligns with the **mission** of the institution and the program's associated **organizational units**.

Annotation Associated organizational units are those under which athletic training falls. For example, if an athletic training program is in a department and the department is in a school, then the **mission** must be congruent with these units.

Standard 2 The program has developed, implemented, and evaluated a **framework** that describes how the program is designed to achieve its **mission** and that guides program design, delivery, and assessment.

Annotation This written **framework** describes essential program elements and how they're connected; these elements include core principles, strategic planning, **goals** and expected **outcomes**, curricular design (for example, teaching and learning methods), curricular planning and sequencing, and the **assessment plan**. The **framework** is evaluated and refined on an ongoing basis.

*The **framework** includes program-specific **outcomes** that are defined by the program; these **outcomes** include measures of student learning, quality of instruction, quality of clinical education, and overall program effectiveness. Programs must minimally incorporate the student achievement measures identified in Standard 6 as **outcomes**. Improvement plans must include targeted **goals** and specific action plans for the communication and implementation of the program.*

Standard 3 Development, implementation, and evaluation of the **framework** engage all **core faculty** and include other stakeholders as determined by the program.

Annotation All **core faculty** must participate in the development, implementation, and evaluation of the **framework** on an ongoing basis. The nature and extent of participation by each **core faculty** member and other stakeholders is determined by the program.

Standard 4 The results of the program's **assessment plan** are used for continued program improvement.

Annotation The program analyzes the extent to which it meets its program-specific **outcomes** and creates an action plan for program improvement and identified deficiencies. The action plan minimally includes identification of responsible person or persons, listing of resources needed, a timeframe, and a strategy to modify the plan as needed.

Standard 5 The program collects student achievement measures on an annual basis.

Annotation The following student achievement measures must be collected:

- **Program graduation rate**
- **Program retention rate**
- **Graduate placement rate**
- **First-time pass rate on the Board of Certification examination**

Standard 6 The program meets or exceeds a three-year aggregate of 70% first-time pass rate on the BOC examination.

Annotation Procedures for review and action on this standard are described in the CAATE policies and procedures manual.

Standard 7 Programs that have a three-year aggregate BOC examination first-time pass rate below 70% must provide an analysis of deficiencies and develop and implement an **action plan for correction of BOC-examination pass-rate deficiency**.

Annotation This standard only applies in the event that a program is not compliant with Standard 6.

SECTION II PROGRAM DELIVERY

Standard 8 Planned **interprofessional education** is incorporated within the **professional program**.

Annotation Varying methods can be used to incorporate **interprofessional education**. To meet this standard, each student in the program must have multiple exposures to **interprofessional education**.

Standard 9 All courses used to fulfill **athletic training clinical experience** requirements and to meet the curricular content standards (Standards 56 through 94) are delivered at the graduate level.

Annotation Graduate-level courses award graduate credit. The determination of whether a course is graduate level is made by the institution.

Standard 10 Students fulfill all **athletic training clinical experience** requirements and curricular content standards (Standards 56 through 94) within the **professional program**.

Annotation Fulfillment of **athletic training clinical experience** requirements and curricular content standards prior to enrollment in the **professional program** is not sufficient to meet this standard. **Athletic training clinical experiences** must occur throughout the **professional program**.

Standard 11 The program uses clearly written syllabi for all courses that are part of the **professional program**.

Annotation Course syllabi include clearly written course objectives, assessment methods, and a daily/weekly schedule. Each syllabus includes sufficient information in the objectives and the daily/weekly schedule to ascertain the curricular content (see Section IV) that is being taught in the course.

Standard 12 Course credits are consistent with institutional policy or institutional practice.

Annotation Policy or practice must address credit allocation for all types of courses (for example, didactic, practicum, with associated **athletic training and/or supplemental clinical experience** components).

Standard 13 The program ensures that the time commitment for completing program requirements does not adversely affect students' progression through the program.

Annotation The program must identify policies and procedures used to ensure that students' program-related time commitments, including time spent in **athletic training and supplemental clinical experiences**, are not excessive.

Standard 14 A program's **clinical education** requirements are met through graduate courses and span a minimum of two **academic years**.

Standard 15 A program's **athletic training clinical experiences** and **supplemental clinical experiences** provide a logical progression of increasingly complex and autonomous patient-care and client-care experiences.

Standard 16 The **clinical education** component is planned to include at least one athletic training **immersive clinical experience**.

Annotation An athletic training **immersive clinical experience** is a practice-intensive experience that allows the student to experience the totality of care provided by **athletic trainers**. Students must participate in the day-to-day and week-to-week role of an athletic trainer for a period of time identified by the program (but minimally one continuous four-week period). Programs may include online education during the immersive experiences that does not detract from the nature of an **immersive clinical experience**.

Standard 17 A program's **clinical education** component is planned to include clinical practice opportunities with varied client/patient populations. Populations must include clients/patients

- throughout the lifespan (for example, pediatric, adult, elderly),
- of different sexes,
- with different **socioeconomic statuses**,
- of varying levels of activity and athletic ability (for example, competitive and recreational, individual and team activities, high- and low-intensity activities),
- who participate in nonsport activities (for example, participants in military, industrial, occupational, leisure activities, performing arts).

Annotation These clinical practice opportunities should occur in **athletic training clinical experiences** with real clients/patients in settings where **athletic trainers** commonly practice. When this is not possible, the program may use **simulation** to meet portions of this standard. Students must have adequate real client/patient interactions (**athletic training clinical experiences**) to prepare them for contemporary clinical practice with a variety of patient populations.

Standard 18 Students gain experience with patients with a variety of health conditions commonly seen in athletic training practice.

Annotation **Athletic trainers** routinely practice in the areas of prevention and wellness, urgent and emergent care, primary care, orthopedics, rehabilitation, behavioral health, pediatrics, and performance enhancement. Within these areas of athletic training practice, the **athletic training clinical experience** provides students with opportunities to engage with patients with emergent, behavioral (mental health), musculoskeletal, neurological, endocrine, dermatological, cardiovascular, respiratory, gastrointestinal, genitourinary, otolaryngological, ophthalmological, dental, and environmental conditions. When specific opportunities are not possible, programs may use **simulation** to meet portions of this standard. Students must have adequate patient/client interactions (**athletic training clinical experiences**) to prepare them for contemporary clinical practice with patients with a variety of health conditions commonly seen in athletic training practice.

SECTION III: INSTITUTIONAL ORGANIZATION AND ADMINISTRATION

Standard 19 The sponsoring institution is accredited by an agency recognized by the United States Department of Education or by the Council for Higher Education Accreditation and must be legally authorized to provide a program of postsecondary education. For programs outside of the United States, the

institution must be authorized to provide postsecondary education, and the program must be delivered in the English language.

Standard 20 Professional programs result in the granting of a master's degree in athletic training. The program must be identified as an academic athletic training degree in institutional publications.

Annotation The CAATE recommends a Master of Athletic Training degree. The degree must appear on the official transcript, similar to normal designations for other degrees at the institution. International programs must use language consistent with the host country's nomenclature and have CAATE approval of that language.

Standard 21 The program is administratively housed with similar health care profession programs that are subject to specialized programmatic accreditation.

Annotation The intent of this standard is to ensure the *professional socialization* of the athletic training program faculty and students within a health care profession culture. If the institution offers no other health care profession programs, or the athletic training program is not administratively housed with similar health care profession programs, explain how the existing organizational structure meets the intent of this standard.

Standard 22 All sites where students are involved in **clinical education** (excluding the sponsoring institution) have a current **affiliation agreement** or **memorandum of understanding** that is endorsed by the appropriate administrative authority at both the sponsoring institution and site.

Annotation When the administrative oversight of the *preceptor* differs from the affiliate site, *affiliation agreements* or *memoranda of understanding* must be obtained from all parties. All sites (excluding the sponsoring institution) must have *affiliation agreements* or memoranda of understanding. Any experience the student completes to meet *clinical education* requirements as an athletic training student must have an agreement. Credit and noncredit *athletic training clinical experiences* or *supplemental clinical experiences*, including internships, must have *affiliation agreements* or memoranda of understanding.

Standard 23 The institution/program has written policies and procedures that ensure the rights and responsibilities of program students. These policies and procedures are available to the public and must include the following:

- 23A Academic dishonesty policy
- 23B Grievance policy
- 23C Matriculation requirements
- 23D Nondiscrimination policies
- 23E Policies for student withdrawal and refund of tuition and fees
- 23F **Technical standards** or essential functions

Annotation: Policies and procedures may be institutional and not specific to the athletic training program.

Standard 24 Prospective and enrolled students are provided with relevant and accurate information about the institution and program. Available information must include the following:

- 24A Academic calendars
- 24B Academic curriculum and course sequence
- 24C Admissions process (including prerequisite courses)
- 24D All costs associated with the program, including (but not limited to) tuition, fees, refund policies, travel costs, and clothing
- 24E Catalogs

- 24F Criminal background check policies
- 24G Degree requirements
- 24H Financial aid
- 24I Grade policies
- 24J Immunization requirements
- 24K Information about **athletic training and supplemental clinical experiences**, including travel expectations to **clinical sites**
- 24L Matriculation requirements
- 24M Nondiscrimination policies
- 24N Procedures governing the award of available funding for scholarships
- 24O Program **mission, goals**, and expected **outcomes**
- 24P Recruitment and admissions information, including admissions criteria, policies regarding transfer of credit, and any special considerations used in the process
- 24Q **Technical standards** or essential functions

Annotation: Information may be institutional and not specific to the athletic training program.

Standard 25 The program posts data detailing its student achievement measures.

Annotation: Data on the following student achievement measures (stated in Standard 5) for the past three years must be posted on, or directly linked from, the program's home page:

- *Program graduation rate*
- *Program retention rate*
- *Graduate placement*
- *First-time pass rate on the Board of Certification examination*

Standard 26 Students are protected by and have access to written policies and procedures that protect the health and safety of clients/patients and the student. At a minimum, the policies and procedures must address the following:

- 26A A mechanism by which clients/patients can differentiate students from credentialed providers
- 26B A requirement for all students to have emergency cardiac care training before engaging in **athletic training and supplemental clinical experiences**
- 26C Blood-borne pathogen protection and exposure plan (including requirements that students receive training, before being placed in a potential exposure situation and annually thereafter, and that students have access to and use of appropriate blood-borne pathogen barriers and control measures at all sites)
- 26D Calibration and maintenance of equipment according to manufacturer guidelines
- 26E Communicable and infectious disease transmission
- 26F Immunization requirements for students
- 26G Patient/client privacy protection (FERPA and HIPAA)
- 26H Radiation exposure (as applicable)
- 26I Sanitation precautions, including ability to clean hands before and after patient encounters
- 26J Venue-specific training expectations (as required)
- 26K Venue-specific critical incident response procedures (for example, emergency action plans) that are immediately accessible to students in an emergency situation

Annotation: These policies and procedures pertain to all learning environments where students are involved in real or simulated client/patient care (including teaching laboratories). Inherent in the development of policies and procedures is the expectation that they are implemented.

Standard 27 The institution/program maintains appropriate student records in secure locations. Student records must include the following:

- 27A Program admissions applications
- 27B Progression through the curriculum
- 27C Disciplinary actions (if applicable)
- 27D Clinical placements
- 27E Verification of annual blood-borne pathogen training
- 27F Verification of compliance with the program's **technical standards** requirements
- 27G Verification of completed criminal background checks (if applicable)
- 27H Verification of privacy training (for example, HIPAA and FERPA, as applicable)
- 27I Verification of notification of communicable/infectious disease transmission policy and postexposure plan
- 27J Compliance with immunization policies
- 27K Verification that the program's students are protected by professional liability insurance

Standard 28 Admission of students to the **professional program** is made in accordance with the program's identified criteria and processes, which are made publicly available.

Annotation: Admissions criteria and processes must be consistently reported anywhere they are published.

Standard 29 The program ensures that each student is oriented to the policies and procedures of their **clinical site**.

*Annotation: Orientations must occur at the start of the experience and before a client/patient encounter at the site. The orientation for **athletic training and supplemental clinical experiences** must include (but is not limited to) the following:*

- *Critical incident response procedures (for example, emergency action plans)*
- *Blood-borne pathogen exposure plan*
- *Communicable and infectious disease policies*
- *Documentation policies and procedures*
- *Patient privacy and confidentiality protections*
- *Plan for clients/patients to be able to differentiate practitioners from students*

The orientation for other clinical education opportunities that involve client/patients may vary based on the nature of the experience.

Standard 30 Educational opportunities and placements are not prejudicial or discriminatory.

Standard 31 **Athletic training clinical experiences** are supervised by a **preceptor** who is an **athletic trainer** or a **physician**.

*Annotation: Note that **supplemental clinical experience** opportunities involve other **health care providers** as **preceptors**, but these opportunities would not fulfill clinical experience requirements as defined in Standards 56 through 94.*

Standard 32 Regular and ongoing communication occurs between the program and each **preceptor**.

*Annotation All parties are informed about the program **framework**, individual student needs, student progress, and assessment procedures. The regularity and nature of communication is defined by the program.*

Standard 33 All active clinical sites are evaluated by the program on an annual basis.

Annotation The program determines the nature and components of the evaluation. These sites include those at the sponsoring institution. Active clinical sites are those where students have been placed during the current academic year.

Standard 34 All program policies, procedures, and practices are applied consistently and equitably.

Annotation This standard provides a mechanism for programs to respond to inquiries about compliance with program policies. Programs are not required to submit evidence of compliance for this standard within a self-study. Evidence of compliance is required only when programs are responding to specific inquiry about potential noncompliance. The nature of evidence requested will depend on the nature of the inquiry.

Standard 35 Program policies, procedures, and practices provide for compliance with accreditation policies and procedures, including the following:

- Maintenance of accurate information, easily accessible to the public, on the program website regarding accreditation status and current student achievement measures
- Timely submission of required fees and documentation, including reports of program graduation rates and graduate placement rates
- Timely notification of expected or unexpected substantive changes within the program and of any change in institutional accreditation status or legal authority to provide postsecondary education

Annotation: Associated due dates are established by the CAATE and are available in the CAATE Policy and Procedure manual. Programs are not required to submit evidence of compliance for this standard within a self-study. Evidence of compliance is required only when programs are responding to specific inquiry from the CAATE about potential noncompliance. The nature of evidence requested will depend on the nature of the inquiry.

Standard 36 The program/institution demonstrates honesty and integrity in all interactions that pertain to the athletic training program.

Annotation Programs are not required to submit initial evidence of compliance for this standard within a self-study. Evidence of compliance is required only when programs are responding to specific inquiry from the CAATE about potential noncompliance. The nature of evidence requested will be dependent on the nature of the inquiry.

Standard 37 The program director is a full-time faculty member whose primary assignment is to the athletic training program. The program director's experience and qualifications include the following:

- An earned doctoral degree
- Contemporary expertise in the field of athletic training
- Certification and good standing with the Board of Certification
- Current state athletic training credential and good standing with the state regulatory agency in the state in which the program is housed (in states with regulation)
- Previous clinical practice as an athletic trainer
- Scholarship
- Previous full-time academic appointment with teaching responsibilities at the postsecondary level

Annotation: The program director's faculty status, rights, and responsibilities are consistent with similar positions at the institution and provide appropriate program representation in institutional decisions.

Any person who is employed as a program director in a CAATE-accredited program as of July 1, 2020, will remain eligible for employment as a program director at a CAATE-accredited institution without an earned doctoral degree.

Standard 38 The program director is responsible for the management and administration of the program. This includes the following responsibilities:

- Program planning and operation, including development of the **framework**
- Program evaluation
- Maintenance of accreditation
- Input into budget management
- Input on the selection of **program personnel**
- Input on the evaluation of **program personnel**

Standard 39 The coordinator of clinical education is a **core faculty** member whose primary appointment is to the athletic training program and who has responsibility to direct clinical education. The coordinator of clinical education's experience and qualifications include the following:

- **Contemporary expertise** in athletic training
- Certification and good standing with the Board of Certification
- Possession of a current state athletic training credential and good standing with the state regulatory agency in the state in which the program is housed (in states with regulation)
- Previous clinical practice in athletic training

Annotation: The title of this individual is determined by the institution, and the position should be consistent with the responsibilities of others at the institution who have similar roles. This individual is not the same person as the program director.

Standard 40 The coordinator of clinical education is responsible for oversight of the **clinical education** portion of the program. This includes the following responsibilities:

- Oversight of student clinical progression
- Student assignment to **athletic training clinical experiences** and **supplemental clinical experiences**
- **Clinical site** evaluation
- Student evaluation
- Regular communication with **preceptors**
- Professional development of **preceptors**
- **Preceptor** selection and evaluation

*Annotation: Communication with the **preceptors** includes familiarizing them with the program **framework**. Professional development of **preceptors** is specific to development of their role as **preceptor**.*

Standard 41 Program faculty numbers are sufficient to meet the needs of the athletic training program and must include a minimum of three **core faculty**.

Annotation Program faculty may include **core faculty**, associated faculty, and adjunct faculty. The needs of the program include advising and mentoring students, meeting program **outcomes**, **scholarship**, program administration, recruiting and admissions, and offering courses on a regular and planned basis.

Programs are required to have sufficient numbers of faculty to meet the needs of the athletic training program by the date of the implementation of these standards. Compliance with the

requirement that the program has a minimum of three **core faculty** is required after July 1, 2023. Until July 1, 2023 programs will be required to maintain compliance with the 2012 Standard (Standard 30) requiring a minimum of two core faculty.

Standard 42 The **core faculty** have **contemporary expertise** in assigned teaching areas, demonstrated effectiveness in teaching, and evidence of **scholarship**.

Standard 43 The program director, coordinator of clinical education, and other **core faculty** have assigned load that is sufficient to meet the needs of the program.

Annotation: Faculty may have other institutional duties that do not interfere with the management, administration, and delivery of the program. Assigned load must be comparable to other faculty with similar roles within the institution or at other peer institutions.

Standard 44 All faculty who instruct athletic training skills necessary for direct patient care must possess a current state credential and be in good standing with the state regulatory agency (in states where their profession is regulated). In addition, faculty who are solely credentialed as **athletic trainers** and who teach skills necessary for direct patient care must be BOC certified.

Standard 45 **Preceptors** are **health care providers** whose experience and qualifications include the following:

- Licensure as a **health care provider**, credentialed by the state in which they practice (where regulated)
- BOC certification in good standing and state credential (in states with regulation) for **preceptors** who are solely credentialed as **athletic trainers**
- Planned and ongoing education for their role as a **preceptor**
- **Contemporary expertise**

Annotation: Preceptor education is designed to promote an effective learning environment and may vary based on the educational expectations of the experiences. The program must have a plan for ongoing preceptor training.

Standard 46 **Preceptors** function to **supervise**, instruct, and mentor students during **clinical education** in accordance with the program's policies and procedures. **Preceptors** who are **athletic trainers** or **physicians** assess students' abilities to meet the curricular content standards (Standards 56 through 94).

Standard 47 The number and qualifications of **preceptors** are sufficient to meet the **clinical education** needs of the program.

Standard 48 Program faculty and **preceptors** receive regular evaluations and feedback on their performance pertaining to quality of instruction and student learning.

Annotation: This evaluation process should be incorporated into the assessment plan that is a component of the framework (see Standard 2). The program must determine the regularity with which faculty and preceptors are evaluated.

Standard 49 The program has a **medical director** who is actively involved in the program.

*Annotation: The **medical director** supports the program director in ensuring that both didactic instruction and **athletic training and supplemental clinical experiences** meet current practice standards as they relate to the athletic trainer's role in providing client/patient care.*

Standard 50 The program has administrative and technical support staff to meet its expected program **outcomes** and professional education, **scholarship**, and service goals.

Standard 51 The available technology, the physical environment, and the equipment are of sufficient quality and quantity to meet program needs, including the following:

51A Classrooms and labs are of adequate number and size to accommodate the number of students, and they are available for exclusive use during class times.

51B Necessary equipment required for teaching a contemporary athletic training curriculum is provided.

51C Offices are provided for program staff and faculty on a consistent basis to allow program administration and confidential student counseling.

51D The available technology is adequate to support effective teaching and learning.

Annotation If a program incorporates remote learning or multi-campus locations, the evidence of compliance should describe how these standards are met at all locations.

Standard 52 The program's students have sufficient access to advising, counseling services, health services, disability services, and financial aid services.

*Annotation Availability of student support services at remote locations (for example, during **athletic training and supplemental clinical experiences**) must be comparable to those for students located on campus.*

Standard 53 Financial resources are adequate to achieve the program's stated **mission, goals, and expected program outcomes**.

Annotation: Funding must be available for expendable supplies, equipment maintenance and calibration, course instruction, operating expenses, faculty professional development, and capital equipment.

SECTION IV: CURRICULAR CONTENT

Prerequisite Coursework and **Foundational Knowledge**

Standard 54 The **professional program** requires prerequisite classes in biology, chemistry, physics, psychology, anatomy, and physiology at the postsecondary level.

Annotation The program determines the classes that meets these standards and supports the program's curricular plan. Additional prerequisite coursework may be required as determined by the program.

Standard 55 Students must gain **foundational knowledge** in statistics, research design, epidemiology, pathophysiology, biomechanics and pathomechanics, exercise physiology, nutrition, human anatomy, pharmacology, public health, and health care delivery and payor systems.

*Annotation **Foundational knowledge** areas can be incorporated as prerequisite coursework, as a component of the **professional program**, or both.*

The **professional program** content will prepare the graduate to do the following:

Core Competencies

Core Competencies: Patient-Centered Care

Standard 56 Advocate for the health needs of clients, patients, communities, and populations.

Annotation: Advocacy encompasses activities that promote health and access to health care for individuals, communities, and the larger public.

Standard 57 Identify health care delivery strategies that account for health literacy and a variety of social determinants of health.

Standard 58 Incorporate patient education and self-care programs to engage patients and their families and friends to participate in their care and recovery.

Standard 59 Communicate effectively and appropriately with clients/patients, family members, coaches, administrators, other health care professionals, consumers, payors, policy makers, and others.

Standard 60 Use the International Classification of Functioning, Disability, and Health (ICF) as a framework for delivery of patient care and communication about patient care.

Core Competencies: Interprofessional Practice and Interprofessional Education

Standard 61 Practice in collaboration with other health care and wellness professionals.

Core Competencies: Evidence-Based Practice

Standard 62 Provide athletic training services in a manner that uses evidence to inform practice.

Annotation: Evidence-based practice includes using best research evidence, clinical expertise, and patient values and circumstances to connect didactic content taught in the classroom to clinical decision making.

Core Competencies: Quality Improvement

Standard 63 Use systems of quality assurance and quality improvement to enhance client/patient care.

Core Competencies: Health Care Informatics

Standard 64 Apply contemporary principles and practices of health informatics to the administration and delivery of patient care, including (but not limited to) the ability to do the following:

- Use data to drive informed decisions
- Search, retrieve, and use information derived from online databases and internal databases for clinical decision support
- Maintain data privacy, protection, and data security
- Use medical classification systems (including International Classification of Disease codes) and terminology (including Current Procedural Terminology)
- Use an **electronic health record** to document, communicate, and manage health-related information; mitigate error; and support decision making.

Core Competencies: **Professionalism**

Standard 65 Practice in a manner that is congruent with the ethical standards of the profession.

Standard 66 Practice health care in a manner that is compliant with the BOC Standards of Professional Practice and applicable institutional/organizational, local, state, and federal laws, regulations, rules, and guidelines. Applicable laws and regulations include (but are not limited to) the following:

- Requirements for physician direction and collaboration
- Mandatory reporting obligations
- Health Insurance Portability and Accountability Act (HIPAA)
- Family Education Rights and Privacy Act (FERPA)
- Universal Precautions/OSHA Bloodborne Pathogen Standards
- Regulations pertaining to over-the-counter and prescription medications

Standard 67 Self-assess professional competence and create professional development plans according to personal and professional goals and requirements.

Standard 68 Advocate for the profession.

*Annotation Advocacy for the profession takes many shapes. Examples include educating the general public, public sector, and private sector; participating in the legislative process; and promoting the need for **athletic trainers**.*

Patient/Client Care

Care Plan

Standard 69 Develop a care plan for each patient. The care plan includes (but is not limited to) the following:

- Assessment of the patient on an ongoing basis and adjustment of care accordingly
- Collection, analysis, and use of patient-reported and clinician-rated outcome measures to improve patient care
- Consideration of the patient's goals and level of function in treatment decisions
- Discharge of the patient when goals are met or the patient is no longer making progress
- Referral when warranted

Examination, Diagnosis, and Intervention

Standard 70 Evaluate and manage patients with acute conditions, including triaging conditions that are life threatening or otherwise emergent. These include (but are not limited to) the following conditions:

- Cardiac compromise (including emergency cardiac care, supplemental oxygen, suction, adjunct airways, nitroglycerine, and low-dose aspirin)
- Respiratory compromise (including use of pulse oximetry, adjunct airways, supplemental oxygen, spirometry, meter-dosed inhalers, nebulizers, and bronchodilators)
- Conditions related to the environment: lightning, cold, heat (including use of rectal thermometry)
- Cervical spine compromise
- Traumatic brain injury
- Internal and external hemorrhage (including use of a tourniquet and hemostatic agents)
- Fractures and dislocations (including reduction of dislocation)
- Anaphylaxis (including administering epinephrine using automated injection device)
- Exertional sickling, rhabdomyolysis, and hyponatremia
- Diabetes (including use of glucometer, administering glucagon, insulin)
- Drug overdose (including administration of rescue medications such as naloxone)
- Wounds (including care and closure)
- Testicular injury
- Other musculoskeletal injuries

Standard 71 Perform an examination to formulate a diagnosis and plan of care for patients with health conditions commonly seen in athletic training practice. This exam includes the following:

- Obtaining a medical history from the patient or other individual
- Identifying comorbidities and patients with complex medical conditions
- Assessing function (including gait)
- Selecting and using tests and measures that assess the following, as relevant to the patient's clinical presentation:
 - Cardiovascular system (including auscultation)
 - Endocrine system
 - Eyes, ears, nose, throat, mouth, and teeth
 - Gastrointestinal system
 - Genitourinary system
 - Integumentary system
 - Mental status
 - Musculoskeletal system
 - Neurological system
 - Pain level
 - Reproductive system
 - Respiratory system (including auscultation)
 - Specific functional tasks
- Evaluating all results to determine a plan of care, including referral to the appropriate provider when indicated

Standard 72 Perform or obtain the necessary and appropriate diagnostic or laboratory tests—including (but not limited to) imaging, blood work, urinalysis, and electrocardiogram—to facilitate diagnosis, referral, and treatment planning.

Standard 73 Select and incorporate interventions (for pre-op patients, post-op patients, and patients with nonsurgical conditions) that align with the care plan. Interventions include (but are not limited to) the following:

- Therapeutic and corrective exercise
- Joint mobilization and manipulation
- Soft tissue techniques
- Movement training (including gait training)
- Motor control/proprioceptive activities
- Task-specific functional training
- Therapeutic modalities
- Home care management
- Cardiovascular training

Standard 74 Educate patients regarding appropriate pharmacological agents for the management of their condition, including indications, contraindications, dosing, interactions, and adverse reactions.

Standard 75 Administer medications or other therapeutic agents by the appropriate route of administration upon the order of a physician or other provider with legal prescribing authority.

Standard 76 Evaluate and treat a patient who has sustained a concussion or other brain injury, with consideration of established guidelines:

- Performance of a comprehensive examination designed to recognize concussion or other brain injury, including (but not limited to) neurocognitive evaluation, assessment of the vestibular and vision systems, cervical spine involvement, mental health status, sleep assessment, exertional testing, nutritional status, and clinical interview
- Re-examination of the patient on an ongoing basis
- Recognition of an atypical response to brain injury
- Implementation of a plan of care (addressing vestibular and oculomotor disturbance, cervical spine pain, headache, vision, psychological needs, nutrition, sleep disturbance, exercise, academic and behavioral accommodations, and risk reduction)
- Return of the patient to activity/participation
- Referral to the appropriate provider when indicated

Standard 77 Identify, refer, and give support to patients with behavioral health conditions. Work with other health care professionals to monitor these patients' treatment, compliance, progress, and readiness to participate.

Annotation These behavioral health conditions include (but are not limited to) suicidal ideation, depression, anxiety disorder, psychosis, mania, eating disorders, and attention deficit disorders.

Standard 78 Select, fabricate, and/or customize prophylactic, assistive, and restrictive devices, materials, and techniques for incorporation into the plan of care, including the following:

- **Durable medical equipment**

- Orthotic devices
- Taping, splinting, protective padding, and casting

Prevention, Health Promotion, and Wellness

Standard 79 Develop and implement strategies to mitigate the risk for long-term health conditions across the lifespan. These include (but are not limited to) the following conditions:

- Adrenal diseases
- Cardiovascular disease
- Diabetes
- Neurocognitive disease
- Obesity
- Osteoarthritis

Standard 80 Develop, implement, and assess the effectiveness of programs to reduce injury risk.

Standard 81 Plan and implement a comprehensive preparticipation examination process to affect health outcomes.

Standard 82 Develop, implement, and supervise comprehensive programs to maximize sport performance that are safe and specific to the client's activity.

Standard 83 Educate and make recommendations to clients/patients on fluids and nutrients to ingest prior to activity, during activity, and during recovery for a variety of activities and environmental conditions.

Standard 84 Educate clients/patients about the effects, participation consequences, and risks of misuse and abuse of alcohol, tobacco, performance-enhancing drugs/substances, and over-the-counter, prescription, and recreational drugs.

Standard 85 Monitor and evaluate environmental conditions to make appropriate recommendations to start, stop, or modify activity in order to prevent environmental illness or injury.

Standard 86 Select, fit, and remove protective equipment to minimize the risk of injury or re-injury.

Standard 87 Select and use **biometrics** and **physiological monitoring systems** and translate the data into effective preventive measures, clinical interventions, and performance enhancement.

Health Care Administration

Standard 88 Perform administrative duties related to the management of physical, human, and financial resources in the delivery of health care services. These include (but are not limited to) the following duties:

- Strategic planning and assessment
- Managing a physical facility that is compliant with current standards and regulations
- Managing budgetary and fiscal processes
- Identifying and mitigating sources of risk to the individual, the organization, and the community
- Navigating multipayer insurance systems and classifications
- Implementing a model of delivery (for example, value-based care model)

Standard 89 Use a comprehensive patient-file management system (including diagnostic and procedural codes) for documentation of patient care and health insurance management.

Standard 90 Establish a working relationship with a directing or collaborating **physician**.

Annotation This standard is specific to preparing an athletic trainer to fulfill the Board of Certification Standards of Professional Practice, specifically Standard 1, "The Athletic Trainer renders service or treatment under the direction of, or in collaboration with a **physician**, in accordance with their training and the state's statutes, rules and regulations."¹

Standard 91 Develop, implement, and revise policies and procedures to guide the daily operation of athletic training services.

Annotation Examples of daily operation policies include pharmaceutical management, **physician** referrals, and inventory management.

Standard 92 Develop, implement, and revise policies that pertain to prevention, preparedness, and response to medical emergencies and other critical incidents.

Standard 93 Develop and implement specific policies and procedures for individuals who have sustained concussions or other brain injuries, including the following:

- Education of all stakeholders
- Recognition, appraisal, and mitigation of risk factors
- Selection and interpretation of baseline testing
- Agreement on protocols to be followed, including immediate management, referral, and progressive return to activities of daily living, including school, sport, occupation, and recreation

Standard 94 Develop and implement specific policies and procedures for the purposes of identifying patients with behavioral health problems and referring patients in crisis to qualified providers.

ATHLETIC TRAINING EDUCATION COMPETENCIES

5th Edition

Released 2011



Foundational Behaviors of Professional Practice

These basic behaviors permeate professional practice and should be incorporated into instruction and assessed throughout the educational program.

Primacy of the Patient

- ◆ Recognize sources of conflict of interest that can impact the client's/patient's health.
- ◆ Know and apply the commonly accepted standards for patient confidentiality.
- ◆ Provide the best healthcare available for the client/patient.
- ◆ Advocate for the needs of the client/patient.

Team Approach to Practice

- ◆ Recognize the unique skills and abilities of other healthcare professionals.
- ◆ Understand the scope of practice of other healthcare professionals.
- ◆ Execute duties within the identified scope of practice for athletic trainers.
- ◆ Include the patient (and family, where appropriate) in the decision-making process.
- ◆ Work with others in effecting positive patient outcomes.

Legal Practice

- ◆ Practice athletic training in a legally competent manner.
- ◆ Identify and conform to the laws that govern athletic training.
- ◆ Understand the consequences of violating the laws that govern athletic training.

Ethical Practice

- ◆ Comply with the NATA's *Code of Ethics* and the BOC's *Standards of Professional Practice*.
- ◆ Understand the consequences of violating the NATA's *Code of Ethics* and BOC's *Standards of Professional Practice*.
- ◆ Comply with other codes of ethics, as applicable.

Advancing Knowledge

- ◆ Critically examine the body of knowledge in athletic training and related fields.
- ◆ Use evidence-based practice as a foundation for the delivery of care.
- ◆ Appreciate the connection between continuing education and the improvement of athletic training practice.
- ◆ Promote the value of research and scholarship in athletic training.
- ◆ Disseminate new knowledge in athletic training to fellow athletic trainers, clients/patients, other healthcare professionals, and others as necessary.

Cultural Competence

- ◆ Demonstrate awareness of the impact that clients'/patients' cultural differences have on their attitudes and behaviors toward healthcare.
- ◆ Demonstrate knowledge, attitudes, behaviors, and skills necessary to achieve optimal health outcomes for diverse patient populations.
- ◆ Work respectfully and effectively with diverse populations and in a diverse work environment.

Professionalism

- ◆ Advocate for the profession.
- ◆ Demonstrate honesty and integrity.
- ◆ Exhibit compassion and empathy.
- ◆ Demonstrate effective interpersonal communication skills.

Evidence-Based Practice (EBP)

Evidence-based practitioners incorporate the best available evidence, their clinical skills, and the needs of the patient to maximize patient outcomes. An understanding of evidence-based practice concepts and their application is essential to sound clinical decision-making and the critical examination of athletic training practice.

Practicing in an evidence-based manner should not be confused with conducting research. While conducting research is important to the profession of athletic training, developing the ability to conduct a research project is not an expectation of professional education. This section focuses on the knowledge and skills necessary for entry-level athletic trainers to use a systematic approach to ask and answer clinically relevant questions that affect patient care by using review and application of existing research evidence. One strategy, among others, is to use a five-step approach: 1) creating a clinically relevant question; 2) searching for the best evidence; 3) critically analyzing the evidence; 4) integrating the appraisal with personal clinical expertise and patients' preferences; and 5) evaluating the performance or outcomes of the actions. Each competency listed below is related to such a systematic approach and provides the building blocks for employing evidence-based practice. Other specific evidence-based practice competencies have also been included in appropriate content areas.

All items listed in parentheses (eg) are intended to serve as examples and are not all encompassing or the only way to satisfy the competency.

KNOWLEDGE AND SKILLS

- EBP-1.** Define evidence-based practice as it relates to athletic training clinical practice.
- EBP-2.** Explain the role of evidence in the clinical decision making process.
- EBP-3.** Describe and differentiate the types of quantitative and qualitative research, research components, and levels of research evidence.
- EBP-4.** Describe a systematic approach (eg, five step approach) to create and answer a clinical question through review and application of existing research.
- EBP-5.** Develop a relevant clinical question using a pre-defined question format (eg, PICO= Patients, Intervention, Comparison, Outcomes; PIO = Patients, Intervention, Outcomes).
- EBP-6.** Describe and contrast research and literature resources including databases and online critical appraisal libraries that can be used for conducting clinically-relevant searches.
- EBP-7.** Conduct a literature search using a clinical question relevant to athletic training practice using search techniques (eg, Boolean search, Medical Subject Headings) and resources appropriate for a specific clinical question.
- EBP-8.** Describe the differences between narrative reviews, systematic reviews, and meta-analyses.
- EBP-9.** Use standard criteria or developed scales (eg, Physiotherapy Evidence Database Scale [PEDro], Oxford Centre for Evidence Based Medicine Scale) to critically appraise the structure, rigor, and overall quality of research studies.
- EBP-10.** Determine the effectiveness and efficacy of an athletic training intervention utilizing evidence-based practice concepts.

- EBP-11.** Explain the theoretical foundation of clinical outcomes assessment (eg, disablement, health-related quality of life) and describe common methods of outcomes assessment in athletic training clinical practice (generic, disease-specific, region-specific, and dimension-specific outcomes instruments).
- EBP-12.** Describe the types of outcomes measures for clinical practice (patient-based and clinician-based) as well as types of evidence that are gathered through outcomes assessment (patient-oriented evidence versus disease-oriented evidence).
- EBP-13.** Understand the methods of assessing patient status and progress (eg, global rating of change, minimal clinically important difference, minimal detectable difference) with clinical outcomes assessments.
- EBP-14.** Apply and interpret clinical outcomes to assess patient status, progress, and change using psychometrically sound outcome instruments.

Prevention and Health Promotion (PHP)

Athletic trainers develop and implement strategies and programs to prevent the incidence and/or severity of injuries and illnesses and optimize their clients'/patients' overall health and quality of life. These strategies and programs also incorporate the importance of nutrition and physical activity in maintaining a healthy lifestyle and in preventing chronic disease (eg, diabetes, obesity, cardiovascular disease).

KNOWLEDGE AND SKILLS

General Prevention Principles

- PHP-1.** Describe the concepts (eg, case definitions, incidence versus prevalence, exposure assessment, rates) and uses of injury and illness surveillance relevant to athletic training.
- PHP-2.** Identify and describe measures used to monitor injury prevention strategies (eg, injury rates and risks, relative risks, odds ratios, risk differences, numbers needed to treat/harm).
- PHP-3.** Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.
- PHP-4.** Explain how the effectiveness of a prevention strategy can be assessed using clinical outcomes, surveillance, or evaluation data.
- PHP-5.** Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.
- PHP-6.** Summarize the epidemiology data related to the risk of injury and illness associated with participation in physical activity.

Prevention Strategies and Procedures

- PHP-7.** Implement disinfectant procedures to prevent the spread of infectious diseases and to comply with Occupational Safety and Health Administration (OSHA) and other federal regulations.
- PHP-8.** Identify the necessary components to include in a preparticipation physical examination as recommended by contemporary guidelines (eg, American Heart Association, American Academy of Pediatrics Council on Sports Medicine & Fitness).
- PHP-9.** Explain the role of the preparticipation physical exam in identifying conditions that might predispose the athlete to injury or illness.
- PHP-10.** Explain the principles of the body's thermoregulatory mechanisms as they relate to heat gain and heat loss.
- PHP-11.** Explain the principles of environmental illness prevention programs to include acclimation and conditioning, fluid and electrolyte replacement requirements, proper practice and competition attire, hydration status, and environmental assessment (eg, sling psychrometer, wet bulb globe temperatures [WBGT], heat index guidelines).
- PHP-12.** Summarize current practice guidelines related to physical activity during extreme weather conditions (eg, heat, cold, lightning, wind).
- PHP-13.** Obtain and interpret environmental data (web bulb globe temperature [WBGT], sling psychrometer, lightning detection devices) to make clinical decisions regarding the scheduling, type, and duration of physical activity.

- PHP-14.** Assess weight loss and hydration status using weight charts, urine color charts, or specific gravity measurements to determine an individual's ability to participate in physical activity in a hot, humid environment.
- PHP-15.** Use a glucometer to monitor blood glucose levels, determine participation status, and make referral decisions.
- PHP-16.** Use a peak-flow meter to monitor a patient's asthma symptoms, determine participation status, and make referral decisions.
- PHP-17.** Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:
- PHP-17a.** Cardiac arrhythmia or arrest
 - PHP-17b.** Asthma
 - PHP-17c.** Traumatic brain injury
 - PHP-17d.** Exertional heat stroke
 - PHP-17e.** Hyponatremia
 - PHP-17f.** Exertional sickling
 - PHP-17g.** Anaphylactic shock
 - PHP-17h.** Cervical spine injury
 - PHP-17i.** Lightning strike
- PHP-18.** Explain strategies for communicating with coaches, athletes, parents, administrators, and other relevant personnel regarding potentially dangerous conditions related to the environment, field, or playing surfaces.
- PHP-19.** Instruct clients/patients in the basic principles of ergonomics and their relationship to the prevention of illness and injury.

Protective Equipment and Prophylactic Procedures

- PHP-20.** Summarize the basic principles associated with the design, construction, fit, maintenance, and reconditioning of protective equipment, including the rules and regulations established by the associations that govern its use.
- PHP-21.** Summarize the principles and concepts related to the fabrication, modification, and appropriate application or use of orthotics and other dynamic and static splints.
- PHP-22.** Fit standard protective equipment following manufacturers' guidelines.
- PHP-23.** Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.

Fitness/Wellness

- PHP-24.** Summarize the general principles of health maintenance and personal hygiene, including skin care, dental hygiene, sanitation, immunizations, avoidance of infectious and contagious diseases, diet, rest, exercise, and weight control.
- PHP-25.** Describe the role of exercise in maintaining a healthy lifestyle and preventing chronic disease.

- PHP-26.** Identify and describe the standard tests, test equipment, and testing protocols that are used for measuring fitness, body composition, posture, flexibility, muscular strength, power, speed, agility, and endurance.
- PHP-27.** Compare and contrast the various types of flexibility, strength training, and cardiovascular conditioning programs to include expected outcomes, safety precautions, hazards, and contraindications.
- PHP-28.** Administer and interpret fitness tests to assess a client's/patient's physical status and readiness for physical activity.
- PHP-29.** Explain the basic concepts and practice of fitness and wellness screening.
- PHP-30.** Design a fitness program to meet the individual needs of a client/patient based on the results of standard fitness assessments and wellness screening.
- PHP-31.** Instruct a client/patient regarding fitness exercises and the use of muscle strengthening equipment to include correction or modification of inappropriate, unsafe, or dangerous lifting techniques.

General Nutrition Concepts

- PHP-32.** Describe the role of nutrition in enhancing performance, preventing injury or illness, and maintaining a healthy lifestyle.
- PHP-33.** Educate clients/patients on the importance of healthy eating, regular exercise, and general preventative strategies for improving or maintaining health and quality of life.
- PHP-34.** Describe contemporary nutritional intake recommendations and explain how these recommendations can be used in performing a basic dietary analysis and providing appropriate general dietary recommendations.
- PHP-35.** Describe the proper intake, sources of, and effects of micro- and macronutrients on performance, health, and disease.
- PHP-36.** Describe current guidelines for proper hydration and explain the consequences of improper fluid/electrolyte replacement.
- PHP-37.** Identify, analyze, and utilize the essential components of food labels to determine the content, quality, and appropriateness of food products.
- PHP-38.** Describe nutritional principles that apply to tissue growth and repair.
- PHP-39.** Describe changes in dietary requirements that occur as a result of changes in an individual's health, age, and activity level.
- PHP-40.** Explain the physiologic principles and time factors associated with the design and planning of pre-activity and recovery meals/snacks and hydration practices.
- PHP-41.** Identify the foods and fluids that are most appropriate for pre-activity, activity, and recovery meals/snacks.

Weight Management and Body Composition

- PHP-42.** Explain how changes in the type and intensity of physical activity influence the energy and nutritional demands placed on the client/patient.

PHP-43. Describe the principles and methods of body composition assessment to assess a client's/patient's health status and to monitor changes related to weight management, strength training, injury, disordered eating, menstrual status, and/or bone density status.

PHP-44. Assess body composition by validated techniques.

PHP-45. Describe contemporary weight management methods and strategies needed to support activities of daily life and physical activity.

Disordered Eating and Eating Disorders

PHP-46. Identify and describe the signs, symptoms, physiological, and psychological responses of clients/patients with disordered eating or eating disorders.

PHP-47. Describe the method of appropriate management and referral for clients/patients with disordered eating or eating disorders in a manner consistent with current practice guidelines.

Performance Enhancing and Recreational Supplements and Drugs

PHP-48. Explain the known usage patterns, general effects, and short- and long-term adverse effects for the commonly used dietary supplements, performance enhancing drugs, and recreational drugs.

PHP-49. Identify which therapeutic drugs, supplements, and performance-enhancing substances are banned by sport and/or workplace organizations in order to properly advise clients/patients about possible disqualification and other consequences.

Clinical Examination and Diagnosis (CE)

Athletic trainers must possess strong clinical examination skills in order to accurately diagnosis and effectively treat their patients. The clinical examination is an on-going process, repeated to some extent each time the patient is treated. The development of these skills requires a thorough understanding of anatomy, physiology, and biomechanics. Athletic trainers must also apply clinical-reasoning skills throughout the physical examination process in order to assimilate data, select the appropriate assessment tests, and formulate a differential diagnosis.

The competencies identified in this section should be considered in the context of the competencies identified in other domains. For example, the knowledge and skills associated with acute care and therapeutic interventions, while applicable for this domain, are not repeated here.

The clinical examination process is comprehensive and may include a review of the systems and regions identified below based on the patient's relevant history and examination findings. Consideration must also be given to the patient's behavioral and cognitive status and history; competencies addressing this content area are included elsewhere.

SYSTEMS AND REGIONS

- a. Musculoskeletal
- b. Integumentary
- c. Neurological
- d. Cardiovascular
- e. Endocrine
- f. Pulmonary
- g. Gastrointestinal
- h. Hepatobiliary
- i. Immune
- j. Renal and urogenital
- k. The face, including maxillofacial region and mouth
- l. Eye, ear, nose, and throat

KNOWLEDGE AND SKILLS

- CE-1.** Describe the normal structures and interrelated functions of the body systems.
- CE-2.** Describe the normal anatomical, systemic, and physiological changes associated with the lifespan.
- CE-3.** Identify the common congenital and acquired risk factors and causes of musculoskeletal injuries and common illnesses that may influence physical activity in pediatric, adolescent, adult, and aging populations.
- CE-4.** Describe the principles and concepts of body movement, including normal osteokinematics and arthrokinematics.
- CE-5.** Describe the influence of pathomechanics on function.
- CE-6.** Describe the basic principles of diagnostic imaging and testing and their role in the diagnostic process.
- CE-7.** Identify the patient's participation restrictions (disabilities) and activity limitations (functional limitations) to determine the impact of the condition on the patient's life.

- CE-8.** Explain the role and importance of functional outcome measures in clinical practice and patient health-related quality of life.
- CE-9.** Identify functional and patient-centered quality of life outcome measures appropriate for use in athletic training practice.
- CE-10.** Explain diagnostic accuracy concepts including reliability, sensitivity, specificity, likelihood ratios, prediction values, and pre-test and post-test probabilities in the selection and interpretation of physical examination and diagnostic procedures.
- CE-11.** Explain the creation of clinical prediction rules in the diagnosis and prognosis of various clinical conditions.
- CE-12.** Apply clinical prediction rules (eg, Ottawa Ankle Rules) during clinical examination procedures.
- CE-13.** Obtain a thorough medical history that includes the pertinent past medical history, underlying systemic disease, use of medications, the patient's perceived pain, and the history and course of the present condition.
- CE-14.** Differentiate between an initial injury evaluation and follow-up/reassessment as a means to evaluate the efficacy of the patient's treatment/rehabilitation program, and make modifications to the patient's program as needed.
- CE-15.** Demonstrate the ability to modify the diagnostic examination process according to the demands of the situation and patient responses.
- CE-16.** Recognize the signs and symptoms of catastrophic and emergent conditions and demonstrate appropriate referral decisions.
- CE-17.** Use clinical reasoning skills to formulate an appropriate clinical diagnosis for common illness/disease and orthopedic injuries/conditions.
- CE-18.** Incorporate the concept of differential diagnosis into the examination process.
- CE-19.** Determine criteria and make decisions regarding return to activity and/or sports participation based on the patient's current status.
- CE-20.** Use standard techniques and procedures for the clinical examination of common injuries, conditions, illnesses, and diseases including, but not limited to:
 - CE-20a.** history taking
 - CE-20b.** inspection/observation
 - CE-20c.** palpation
 - CE-20d.** functional assessment
 - CE-20e.** selective tissue testing techniques / special tests
 - CE-20f.** neurological assessments (sensory, motor, reflexes, balance, cognitive function)
 - CE-20g.** respiratory assessments (auscultation, percussion, respirations, peak-flow)
 - CE-20h.** circulatory assessments (pulse, blood pressure, auscultation)
 - CE-20i.** abdominal assessments (percussion, palpation, auscultation)
 - CE-20j.** other clinical assessments (otoscope, urinalysis, glucometer, temperature, ophthalmoscope)

- CE-21.** Assess and interpret findings from a physical examination that is based on the patient's clinical presentation. This exam can include:
 - CE-21a.** Assessment of posture, gait, and movement patterns
 - CE-21b.** Palpation
 - CE-21c.** Muscle function assessment
 - CE-21d.** Assessment of quantity and quality of osteokinematic joint motion
 - CE-21e.** Capsular and ligamentous stress testing
 - CE-21f.** Joint play (arthrokinematics)
 - CE-21g.** Selective tissue examination techniques / special tests
 - CE-21h.** Neurologic function (sensory, motor, reflexes, balance, cognition)
 - CE-21i.** Cardiovascular function (including differentiation between normal and abnormal heart sounds, blood pressure, and heart rate)
 - CE-21j.** Pulmonary function (including differentiation between normal breath sounds, percussion sounds, number and characteristics of respirations, peak expiratory flow)
 - CE-21k.** Gastrointestinal function (including differentiation between normal and abnormal bowel sounds)
 - CE-21l.** Genitourinary function (urinalysis)
 - CE-21m.** Ocular function (vision, ophthalmoscope)
 - CE-21n.** Function of the ear, nose, and throat (including otoscopic evaluation)
 - CE-21o.** Dermatological assessment
 - CE-21p.** Other assessments (glucometer, temperature)

- CE-22.** Determine when the findings of an examination warrant referral of the patient.

- CE-23.** Describe current setting-specific (eg, high school, college) and activity-specific rules and guidelines for managing injuries and illnesses.

Acute Care of Injuries and Illnesses (AC)

Athletic trainers are often present when injuries or other acute conditions occur or are the first healthcare professionals to evaluate a patient. For this reason, athletic trainers must be knowledgeable and skilled in the evaluation and immediate management of acute injuries and illnesses.

The competencies identified in this section should be considered in the context of the competencies identified in other domains. For example, the knowledge and skills associated with the process of examination and documentation, while applicable for this domain, are not repeated here. Likewise, the knowledge and skills associated with the administrative and risk management aspects of planning for an emergency injury/illness situation are not repeated here.

KNOWLEDGE AND SKILLS

Planning

- AC-1.** Explain the legal, moral, and ethical parameters that define the athletic trainer's scope of acute and emergency care.
- AC-2.** Differentiate the roles and responsibilities of the athletic trainer from other pre-hospital care and hospital-based providers, including emergency medical technicians/paramedics, nurses, physician assistants, and physicians.
- AC-3.** Describe the hospital trauma level system and its role in the transportation decision-making process.

Examination

- AC-4.** Demonstrate the ability to perform scene, primary, and secondary surveys.
- AC-5.** Obtain a medical history appropriate for the patient's ability to respond.
- AC-6.** When appropriate, obtain and monitor signs of basic body functions including pulse, blood pressure, respiration, pulse oximetry, pain, and core temperature. Relate changes in vital signs to the patient's status.
- AC-7.** Differentiate between normal and abnormal physical findings (eg, pulse, blood pressure, heart and lung sounds, oxygen saturation, pain, core temperature) and the associated pathophysiology.

Immediate Emergent Management

- AC-8.** Explain the indications, guidelines, proper techniques, and necessary supplies for removing equipment and clothing in order to access the airway, evaluate and/or stabilize an athlete's injured body part.
- AC-9.** Differentiate the types of airway adjuncts (oropharyngeal airways [OPA], nasopharyngeal airways [NPA] and supraglottic airways [King LT-D or Combitube]) and their use in maintaining a patent airway in adult respiratory and/or cardiac arrest.
- AC-10.** Establish and maintain an airway, including the use of oro- and nasopharyngeal airways, and neutral spine alignment in an athlete with a suspected spine injury who may be wearing shoulder pads, a helmet with and without a face guard, or other protective equipment.

- AC-11.** Determine when suction for airway maintenance is indicated and use according to accepted practice protocols.
- AC-12.** Identify cases when rescue breathing, CPR, and/or AED use is indicated according to current accepted practice protocols.
- AC-13.** Utilize an automated external defibrillator (AED) according to current accepted practice protocols.
- AC-14.** Perform one- and two- person CPR on an infant, child and adult.
- AC-15.** Utilize a bag valve and pocket mask on a child and adult using supplemental oxygen.
- AC-16.** Explain the indications, application, and treatment parameters for supplemental oxygen administration for emergency situations.
- AC-17.** Administer supplemental oxygen with adjuncts (eg, non-rebreather mask, nasal cannula).
- AC-18.** Assess oxygen saturation using a pulse oximeter and interpret the results to guide decision making.
- AC-19.** Explain the proper procedures for managing external hemorrhage (eg, direct pressure, pressure points, tourniquets) and the rationale for use of each.
- AC-20.** Select and use the appropriate procedure for managing external hemorrhage.
- AC-21.** Explain aseptic or sterile techniques, approved sanitation methods, and universal precautions used in the cleaning, closure, and dressing of wounds.
- AC-22.** Select and use appropriate procedures for the cleaning, closure, and dressing of wounds, identifying when referral is necessary.
- AC-23.** Use cervical stabilization devices and techniques that are appropriate to the circumstances of an injury.
- AC-24.** Demonstrate proper positioning and immobilization of a patient with a suspected spinal cord injury.
- AC-25.** Perform patient transfer techniques for suspected head and spine injuries utilizing supine log roll, prone log roll with push, prone log roll with pull, and lift-and-slide techniques.
- AC-26.** Select the appropriate spine board, including long board or short board, and use appropriate immobilization techniques based on the circumstance of the patient's injury.
- AC-27.** Explain the role of core body temperature in differentiating between exertional heat stroke, hyponatremia, and head injury.
- AC-28.** Differentiate the different methods for assessing core body temperature.
- AC-29.** Assess core body temperature using a rectal probe.
- AC-30.** Explain the role of rapid full body cooling in the emergency management of exertional heat stroke.
- AC-31.** Assist the patient in the use of a nebulizer treatment for an asthmatic attack.
- AC-32.** Determine when use of a metered-dose inhaler is warranted based on a patient's condition.
- AC-33.** Instruct a patient in the use of a meter-dosed inhaler in the presence of asthma-related bronchospasm.

- AC-34.** Explain the importance of monitoring a patient following a head injury, including the role of obtaining clearance from a physician before further patient participation.
- AC-35.** Demonstrate the use of an auto-injectable epinephrine in the management of allergic anaphylaxis. Decide when auto-injectable epinephrine use is warranted based on a patient's condition.
- AC-36.** Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for:
 - AC-36a.** sudden cardiac arrest
 - AC-36b.** brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture
 - AC-36c.** cervical, thoracic, and lumbar spine trauma
 - AC-36d.** heat illness including heat cramps, heat exhaustion, exertional heat stroke, and hyponatremia
 - AC-36e.** exertional sickling associated with sickle cell trait
 - AC-36f.** rhabdomyolysis
 - AC-36g.** internal hemorrhage
 - AC-36h.** diabetic emergencies including hypoglycemia and ketoacidosis
 - AC-36i.** asthma attacks
 - AC-36j.** systemic allergic reaction, including anaphylactic shock
 - AC-36k.** epileptic and non-epileptic seizures
 - AC-36l.** shock
 - AC-36m.** hypothermia, frostbite
 - AC-36n.** toxic drug overdoses
 - AC-36o.** local allergic reaction

Immediate Musculoskeletal Management

- AC-37.** Select and apply appropriate splinting material to stabilize an injured body area.
- AC-38.** Apply appropriate immediate treatment to protect the injured area and minimize the effects of hypoxic and enzymatic injury.
- AC-39.** Select and implement the appropriate ambulatory aid based on the patient's injury and activity and participation restrictions.

Transportation

- AC-40.** Determine the proper transportation technique based on the patient's condition and findings of the immediate examination.
- AC-41.** Identify the criteria used in the decision-making process to transport the injured patient for further medical examination.
- AC-42.** Select and use the appropriate short-distance transportation methods, such as the log roll or lift and slide, for an injured patient in different situations.

Education

- AC-43.** Instruct the patient in home care and self-treatment plans for acute conditions.

Therapeutic Interventions (TI)

Athletic trainers assess the patient's status using clinician- and patient-oriented outcome measures. Based on this assessment and with consideration of the stage of healing and goals, a therapeutic intervention is designed to maximize the patient's participation and health-related quality of life.

A broad range of interventions, methods, techniques, equipment, activities using body movement, and medications are incorporated into this domain. These interventions are designed to enhance function by identifying, remediating, and preventing impairments and activity restrictions (functional limitations) to maximize participation. Rehabilitation is conducted in a wide variety of settings (eg, aquatic, clinic) with basic and contemporary equipment/modalities and on a wide range of patients with respect to age, overall health, and desired level of activity. Therapeutic interventions also include the use of prescription and nonprescription medications. For this reason, the athletic trainer needs to be knowledgeable about common prescription and nonprescription drug indications, adverse reactions, and interactions.

The competencies identified in this section should be considered in the context of the competencies identified in other content areas. For example, the knowledge and skills associated with the process of examination and documentation, while applicable for this content area, are not included here.

Therapeutic interventions include:

- ◆ Techniques to reduce pain
- ◆ Techniques to limit edema
- ◆ Techniques to restore joint mobility
- ◆ Techniques to restore muscle extensibility
- ◆ Techniques to restore neuromuscular function
- ◆ Exercises to improve strength, endurance, speed, and power
- ◆ Activities to improve balance, neuromuscular control, coordination, and agility
- ◆ Exercises to improve gait, posture, and body mechanics
- ◆ Exercises to improve cardiorespiratory fitness
- ◆ Functional exercises (eg, sports- or activity-specific)
- ◆ Exercises which comprise a home-based program
- ◆ Aquatic therapy
- ◆ Therapeutic modalities
 - superficial thermal agents (eg, hot pack, ice)
 - electrical stimulation
 - therapeutic ultrasound
 - diathermy
 - therapeutic low-level laser and light therapy
 - mechanical modalities
 - traction
 - intermittent compression
 - continuous passive motion
 - massage
 - biofeedback
- ◆ Therapeutic medications (as guided by applicable state and federal law)

KNOWLEDGE AND SKILLS

Physical Rehabilitation and Therapeutic Modalities

- TI-1.** Describe and differentiate the physiological and pathophysiological responses to inflammatory and non-inflammatory conditions and the influence of these responses on the design, implementation, and progression of a therapeutic intervention.
- TI-2.** Compare and contrast contemporary theories of pain perception and pain modulation.
- TI-3.** Differentiate between palliative and primary pain-control interventions.
- TI-4.** Analyze the impact of immobilization, inactivity, and mobilization on the body systems (eg, cardiovascular, pulmonary, musculoskeletal) and injury response.
- TI-5.** Compare and contrast the variations in the physiological response to injury and healing across the lifespan.
- TI-6.** Describe common surgical techniques, including interpretation of operative reports, and any resulting precautions, contraindications, and comorbidities that impact the selection and progression of a therapeutic intervention program.
- TI-7.** Identify patient- and clinician-oriented outcomes measures commonly used to recommend activity level, make return to play decisions, and maximize patient outcomes and progress in the treatment plan.
- TI-8.** Explain the theory and principles relating to expected physiological response(s) during and following therapeutic interventions.
- TI-9.** Describe the laws of physics that (1) underlay the application of thermal, mechanical, electromagnetic, and acoustic energy to the body and (2) form the foundation for the development of therapeutic interventions (eg, stress-strain, leverage, thermodynamics, energy transmission and attenuation, electricity).
- TI-10.** Integrate self-treatment into the intervention when appropriate, including instructing the patient regarding self-treatment plans.
- TI-11.** Design therapeutic interventions to meet specified treatment goals.
 - TI-11a.** Assess the patient to identify indications, contraindications, and precautions applicable to the intended intervention.
 - TI-11b.** Position and prepare the patient for various therapeutic interventions.
 - TI-11c.** Describe the expected effects and potential adverse reactions to the patient.
 - TI-11d.** Instruct the patient how to correctly perform rehabilitative exercises.
 - TI-11e.** Apply the intervention, using parameters appropriate to the intended outcome.
 - TI-11f.** Reassess the patient to determine the immediate impact of the intervention.
- TI-12.** Use the results of on-going clinical examinations to determine when a therapeutic intervention should be progressed, regressed or discontinued.
- TI-13.** Describe the relationship between the application of therapeutic modalities and the incorporation of active and passive exercise and/or manual therapies, including therapeutic massage, myofascial techniques, and muscle energy techniques.
- TI-14.** Describe the use of joint mobilization in pain reduction and restoration of joint mobility.

- TI-15.** Perform joint mobilization techniques as indicated by examination findings.
- TI-16.** Fabricate and apply taping, wrapping, supportive, and protective devices to facilitate return to function.
- TI-17.** Analyze gait and select appropriate instruction and correction strategies to facilitate safe progression to functional gait pattern.
- TI-18.** Explain the relationship between posture, biomechanics, and ergodynamics and the need to address these components in a therapeutic intervention.
- TI-19.** Identify manufacturer, institutional, state, and/or federal standards that influence approval, operation, inspection, maintenance and safe application of therapeutic modalities and rehabilitation equipment.
- TI-20.** Inspect therapeutic equipment and the treatment environment for potential safety hazards.

Therapeutic Medications

- TI-21.** Explain the federal, state, and local laws, regulations and procedures for the proper storage, disposal, transportation, dispensing (administering where appropriate), and documentation associated with commonly used prescription and nonprescription medications.
- TI-22.** Identify and use appropriate pharmaceutical terminology for management of medications, inventory control, and reporting of pharmacological agents commonly used in an athletic training facility.
- TI-23.** Use an electronic drug resource to locate and identify indications, contraindications, precautions, and adverse reactions for common prescription and nonprescription medications.
- TI-24.** Explain the major concepts of pharmacokinetics and the influence that exercise might have on these processes.
- TI-25.** Explain the concepts related to bioavailability, half-life, and bioequivalence (including the relationship between generic and brand name drugs) and their relevance to the patient, the choice of medication, and the dosing schedule.
- TI-26.** Explain the pharmacodynamic principles of receptor theory, dose-response relationship, placebo effect, potency, and drug interactions as they relate to the mechanism of drug action and therapeutic effectiveness.
- TI-27.** Describe the common routes used to administer medications and their advantages and disadvantages.
- TI-28.** Properly assist and/or instruct the patient in the proper use, cleaning, and storage of drugs commonly delivered by metered dose inhalers, nebulizers, insulin pumps, or other parenteral routes as prescribed by the physician.
- TI-29.** Describe how common pharmacological agents influence pain and healing and their influence on various therapeutic interventions.

- TI-30.** Explain the general therapeutic strategy, including drug categories used for treatment, desired treatment outcomes, and typical duration of treatment, for the following common diseases and conditions: asthma, diabetes, hypertension, infections, depression, GERD, allergies, pain, inflammation, and the common cold.
- TI-31.** Optimize therapeutic outcomes by communicating with patients and/or appropriate healthcare professionals regarding compliance issues, drug interactions, adverse drug reactions, and sub-optimal therapy.

Psychosocial Strategies and Referral (PS)

Athletic trainers must be able to recognize clients/patients exhibiting abnormal social, emotional, and mental behaviors. Coupled with recognition is the ability to intervene and refer these individuals as necessary. Additionally, athletic trainers appreciate the role of mental health in injury and recovery and use interventions to optimize the connection between mental health and restoration of participation.

KNOWLEDGE AND SKILLS

Theoretical Background

- PS-1.** Describe the basic principles of personality traits, trait anxiety, locus of control, intrinsic and extrinsic motivation, and patient and social environment interactions as they affect patient interactions.
- PS-2.** Explain the theoretical background of psychological and emotional responses to injury and forced inactivity (eg, cognitive appraisal model, stress response model).
- PS-3.** Describe how psychosocial considerations affect clinical decision-making related to return to activity or participation (eg, motivation, confidence).
- PS-4.** Summarize and demonstrate the basic processes of effective interpersonal and cross-cultural communication as it relates to interactions with patients and others involved in the healthcare of the patient.
- PS-5.** Summarize contemporary theory regarding educating patients of all ages and cultural backgrounds to effect behavioral change.

Psychosocial Strategies

- PS-6.** Explain the importance of educating patients, parents/guardians, and others regarding the condition in order to enhance the psychological and emotional well-being of the patient.
- PS-7.** Describe the psychological techniques (eg, goal setting, imagery, positive self-talk, relaxation/anxiety reduction) that the athletic trainer can use to motivate the patient during injury rehabilitation and return to activity processes.
- PS-8.** Describe psychological interventions (eg, goal setting, motivational techniques) that are used to facilitate a patient's physical, psychological, and return to activity needs.
- PS-9.** Describe the psychosocial factors that affect persistent pain sensation and perception (eg, emotional state, locus of control, psychodynamic issues, sociocultural factors, personal values and beliefs) and identify multidisciplinary approaches for assisting patients with persistent pain.
- PS-10.** Explain the impact of sociocultural issues that influence the nature and quality of healthcare received (eg, cultural competence, access to appropriate healthcare providers, uninsured/underinsured patients, insurance) and formulate and implement strategies to maximize client/patient outcomes.

Mental Health and Referral

- PS-11.** Describe the role of various mental healthcare providers (eg, psychiatrists, psychologists, counselors, social workers) that may comprise a mental health referral network.
- PS-12.** Identify and refer clients/patients in need of mental healthcare.
- PS-13.** Identify and describe the basic signs and symptoms of mental health disorders (eg, psychosis, neurosis; sub-clinical mood disturbances (eg, depression, anxiety); and personal/social conflict (eg, adjustment to injury, family problems, academic or emotional stress, personal assault or abuse, sexual assault or harassment) that may indicate the need for referral to a mental healthcare professional.
- PS-14.** Describe the psychological and sociocultural factors associated with common eating disorders.
- PS-15.** Identify the symptoms and clinical signs of substance misuse/abuse, the psychological and sociocultural factors associated with such misuse/abuse, its impact on an individual's health and physical performance, and the need for proper referral to a healthcare professional.
- PS-16.** Formulate a referral for an individual with a suspected mental health or substance abuse problem.
- PS-17.** Describe the psychological and emotional responses to a catastrophic event, the potential need for a psychological intervention and a referral plan for all parties affected by the event.
- PS-18.** Provide appropriate education regarding the condition and plan of care to the patient and appropriately discuss with others as needed and as appropriate to protect patient privacy.

Healthcare Administration (HA)

Athletic trainers function within the context of a complex healthcare system. Integral to this function is an understanding of risk management, healthcare delivery mechanisms, insurance, reimbursement, documentation, patient privacy, and facility management.

KNOWLEDGE AND SKILLS

- HA-1.** Describe the role of the athletic trainer and the delivery of athletic training services within the context of the broader healthcare system.
- HA-2.** Describe the impact of organizational structure on the daily operations of a healthcare facility.
- HA-3.** Describe the role of strategic planning as a means to assess and promote organizational improvement.
- HA-4.** Describe the conceptual components of developing and implementing a basic business plan.
- HA-5.** Describe basic healthcare facility design for a safe and efficient clinical practice setting.
- HA-6.** Explain components of the budgeting process including: purchasing, requisition, bidding, request for proposal, inventory, profit and loss ratios, budget balancing, and return on investments.
- HA-7.** Assess the value of the services provided by an athletic trainer (eg, return on investment).
- HA-8.** Develop operational and capital budgets based on a supply inventory and needs assessment; including capital equipment, salaries and benefits, trending analysis, facility cost, and common expenses.
- HA-9.** Identify the components that comprise a comprehensive medical record.
- HA-10.** Identify and explain the statutes that regulate the privacy and security of medical records.
- HA-11.** Use contemporary documentation strategies to effectively communicate with patients, physicians, insurers, colleagues, administrators, and parents or family members.
- HA-12.** Use a comprehensive patient-file management system for appropriate chart documentation, risk management, outcomes, and billing.
- HA-13.** Define state and federal statutes that regulate employment practices.
- HA-14.** Describe principles of recruiting, selecting, hiring, and evaluating employees.
- HA-15.** Identify principles of recruiting, selecting, employing, and contracting with physicians and other medical and healthcare personnel in the deployment of healthcare services.
- HA-16.** Describe federal and state infection control regulations and guidelines, including universal precautions as mandated by the Occupational Safety and Health Administration (OSHA), for the prevention, exposure, and control of infectious diseases, and discuss how they apply to the practicing of athletic training.
- HA-17.** Identify key regulatory agencies that impact healthcare facilities, and describe their function in the regulation and overall delivery of healthcare.

- HA-18.** Describe the basic legal principles that apply to an athletic trainer's responsibilities.
- HA-19.** Identify components of a risk management plan to include security, fire, electrical and equipment safety, emergency preparedness, and hazardous chemicals.
- HA-20.** Create a risk management plan and develop associated policies and procedures to guide the operation of athletic training services within a healthcare facility to include issues related to security, fire, electrical and equipment safety, emergency preparedness, and hazardous chemicals.
- HA-21.** Develop comprehensive, venue-specific emergency action plans for the care of acutely injured or ill individuals.
- HA-22.** Develop specific plans of care for common potential emergent conditions (eg, asthma attack, diabetic emergency).
- HA-23.** Identify and explain the recommended or required components of a pre-participation examination based on appropriate authorities' rules, guidelines, and/or recommendations.
- HA-24.** Describe a plan to access appropriate medical assistance on disease control, notify medical authorities, and prevent disease epidemics.
- HA-25.** Describe common health insurance models, insurance contract negotiation, and the common benefits and exclusions identified within these models.
- HA-26.** Describe the criteria for selection, common features, specifications, and required documentation needed for secondary, excess accident, and catastrophic health insurance.
- HA-27.** Describe the concepts and procedures for revenue generation and reimbursement.
- HA-28.** Understand the role of and use diagnostic and procedural codes when documenting patient care.
- HA-29.** Explain typical administrative policies and procedures that govern first aid and emergency care.
- HA-30.** Describe the role and functions of various healthcare providers and protocols that govern the referral of patients to these professionals.

Professional Development and Responsibility (PD)

The provision of high quality patient care requires that the athletic trainer maintain current competence in the constantly changing world of healthcare. Athletic trainers must also embrace the need to practice within the limits of state and national regulation using moral and ethical judgment. As members of a broader healthcare community, athletic trainers work collaboratively with other healthcare providers and refer clients/patients when such referral is warranted.

KNOWLEDGE AND SKILLS

- PD-1.** Summarize the athletic training profession's history and development and how current athletic training practice has been influenced by its past.
- PD-2.** Describe the role and function of the National Athletic Trainers' Association and its influence on the profession.
- PD-3.** Describe the role and function of the Board of Certification, the Commission on Accreditation of Athletic Training Education, and state regulatory boards.
- PD-4.** Explain the role and function of state athletic training practice acts and registration, licensure, and certification agencies including (1) basic legislative processes for the implementation of practice acts, (2) rationale for state regulations that govern the practice of athletic training, and (3) consequences of violating federal and state regulatory acts.
- PD-5.** Access, analyze, and differentiate between the essential documents of the national governing, credentialing and regulatory bodies, including, but not limited to, the *NATA Athletic Training Educational Competencies*, the *BOC Standards of Professional Practice*, the *NATA Code of Ethics*, and the *BOC Role Delineation Study/Practice Analysis*.
- PD-6.** Explain the process of obtaining and maintaining necessary local, state, and national credentials for the practice of athletic training.
- PD-7.** Perform a self-assessment of professional competence and create a professional development plan to maintain necessary credentials and promote life-long learning strategies.
- PD-8.** Differentiate among the preparation, scopes of practice, and roles and responsibilities of healthcare providers and other professionals with whom athletic trainers interact.
- PD-9.** Specify when referral of a client/patient to another healthcare provider is warranted and formulate and implement strategies to facilitate that referral.
- PD-10.** Develop healthcare educational programming specific to the target audience (eg, clients/patients, healthcare personnel, administrators, parents, general public).
- PD-11.** Identify strategies to educate colleagues, students, patients, the public, and other healthcare professionals about the roles, responsibilities, academic preparation, and scope of practice of athletic trainers.
- PD-12.** Identify mechanisms by which athletic trainers influence state and federal healthcare regulation.

Clinical Integration Proficiencies (CIP)

The clinical integration proficiencies (CIPs) represent the synthesis and integration of knowledge, skills, and clinical decision-making into actual client/patient care. The CIPs have been reorganized into this section (rather than at the end of each content area) to reflect their global nature. For example, therapeutic interventions do not occur in isolation from physical assessment.

In most cases, assessment of the CIPs should occur when the student is engaged in real client/patient care and may be necessarily assessed over multiple interactions with the same client/patient. In a few instances, assessment may require simulated scenarios, as certain circumstances may occur rarely but are nevertheless important to the well-prepared practitioner.

The incorporation of evidence-based practice principles into care provided by athletic trainers is central to optimizing outcomes. Assessment of student competence in the CIPs should reflect the extent to which these principles are integrated. Assessment of students in the use of Foundational Behaviors in the context of real patient care should also occur.

PREVENTION & HEALTH PROMOTION

- CIP-1.** Administer testing procedures to obtain baseline data regarding a client's/patient's level of general health (including nutritional habits, physical activity status, and body composition). Use this data to design, implement, evaluate, and modify a program specific to the performance and health goals of the patient. This will include instructing the patient in the proper performance of the activities, recognizing the warning signs and symptoms of potential injuries and illnesses that may occur, and explaining the role of exercise in maintaining overall health and the prevention of diseases. Incorporate contemporary behavioral change theory when educating clients/patients and associated individuals to effect health-related change. Refer to other medical and health professionals when appropriate.
- CIP-2.** Select, apply, evaluate, and modify appropriate standard protective equipment, taping, wrapping, bracing, padding, and other custom devices for the client/patient in order to prevent and/or minimize the risk of injury to the head, torso, spine, and extremities for safe participation in sport or other physical activity.
- CIP-3.** Develop, implement, and monitor prevention strategies for at-risk individuals (eg, persons with asthma or diabetes, persons with a previous history of heat illness, persons with sickle cell trait) and large groups to allow safe physical activity in a variety of conditions. This includes obtaining and interpreting data related to potentially hazardous environmental conditions, monitoring body functions (eg, blood glucose, peak expiratory flow, hydration status), and making the appropriate recommendations for individual safety and activity status.

CLINICAL ASSESSMENT & DIAGNOSIS / ACUTE CARE / THERAPEUTIC INTERVENTION

- CIP-4.** Perform a comprehensive clinical examination of a patient with an upper extremity, lower extremity, head, neck, thorax, and/or spine injury or condition. This exam should incorporate clinical reasoning in the selection of assessment procedures and interpretation of findings in order to formulate a differential diagnosis and/or diagnosis, determine underlying impairments, and identify activity limitations and participation restrictions. Based on the assessment data and consideration of the patient's goals, provide the appropriate initial care and establish overall treatment goals. Create and implement a therapeutic intervention that targets these treatment goals to include, as appropriate, therapeutic modalities, medications (with physician involvement as necessary), and rehabilitative techniques and procedures. Integrate and interpret various forms of standardized documentation including both patient-oriented and clinician-oriented outcomes measures to recommend activity level, make return to play decisions, and maximize patient outcomes and progress in the treatment plan.
- CIP-5.** Perform a comprehensive clinical examination of a patient with a common illness/condition that includes appropriate clinical reasoning in the selection of assessment procedures and interpretation of history and physical examination findings in order to formulate a differential diagnosis and/or diagnosis. Based on the history, physical examination, and patient goals, implement the appropriate treatment strategy to include medications (with physician involvement as necessary). Determine whether patient referral is needed, and identify potential restrictions in activities and participation. Formulate and communicate the appropriate return to activity protocol.
- CIP-6.** Clinically evaluate and manage a patient with an emergency injury or condition to include the assessment of vital signs and level of consciousness, activation of emergency action plan, secondary assessment, diagnosis, and provision of the appropriate emergency care (eg, CPR, AED, supplemental oxygen, airway adjunct, splinting, spinal stabilization, control of bleeding).

PSYCHOSOCIAL STRATEGIES AND REFERRAL

- CIP-7.** Select and integrate appropriate psychosocial techniques into a patient's treatment or rehabilitation program to enhance rehabilitation adherence, return to play, and overall outcomes. This includes, but is not limited to, verbal motivation, goal setting, imagery, pain management, self-talk, and/or relaxation.
- CIP-8.** Demonstrate the ability to recognize and refer at-risk individuals and individuals with psychosocial disorders and/or mental health emergencies. As a member of the management team, develop an appropriate management plan (including recommendations for patient safety and activity status) that establishes a professional helping relationship with the patient, ensures interactive support and education, and encourages the athletic trainer's role of informed patient advocate in a manner consistent with current practice guidelines.

HEALTHCARE ADMINISTRATION

- CIP-9.** Utilize documentation strategies to effectively communicate with patients, physicians, insurers, colleagues, administrators, and parents or family members while using appropriate terminology and complying with statutes that regulate privacy of medical records. This includes using a comprehensive patient-file management system (including diagnostic and procedural codes) for appropriate chart documentation, risk management, outcomes, and billing.