



WILLIAM WOODS
UNIVERSITY

Sport Medicine (Pre ATR) Annual Assessment 2018-2019

SPORT MEDICINE (PRE ATR) ANNUAL ASSESSMENT 2018-2019 **1****ANNUAL ASSESSMENT 18-19** **3**

SPORTS MEDICINE (PRE ATR)	3
PROGRAM PROFILE	3
PROGRAM ASSESSMENT	5
CURRICULUM MAP	21
ASSESSMENT FINDINGS	73
PROGRAM ACTIVITIES	74

Annual Assessment 18-19

Sports Medicine (Pre ATR)

Program Profile

Program Mission Statement

Please insert your program mission statement here

The Sports Medicine Concentration prepares students to succeed in the professional phase of athletic training education at the graduate level. The concentration focuses coursework in basic sciences including biology, chemistry, and physics. Students will obtain practical application in anatomy, physiology, exercise science, and injury management.

Students completing the Sports Medicine Concentration will be able to apply for the Master of Science in Athletic Training in spring of their junior year. This is a separate application process from William Woods University and consists of a formal application and essay, completion of observational hours, and an interview with the athletic training faculty and staff.

Program Data

Delivery Method

Traditional On Campus (selected)
Online
Hybrid

Students Majors 2017-18

20

Student Majors 2018-19

20

Concentrations 2017-18

If your program contains concentrations, please list the concentrations and the number of students identified within each concentration.

Sports Medicine Pre-Athletic Training is a concentration in the Exercise Science curriculum.

Concentrations 2018-19

If your program contains concentrations, please list the concentrations and the number of students identified with each concentration.

Sports Medicine Pre-Athletic Training is a concentration in the Exercise Science curriculum.

Student Demographics

What are the program goals for student retention, persistence and degree completion? What do the persistence numbers mean to the faculty in the program? Are your persistence numbers what you expected? If not, how could the numbers be improved? What is the optimal enrollment for the program?

Optimal enrollment

The undergraduate program is no longer accepting students as part of the CAATE approved teach-out plan. The current students will be applying to the Master of Athletic Training program in Spring 2019. This is a separate application process from the university that requires completion of a formal application portfolio that includes an application, an essay, and documentation of completion of a minimum of 50 observational hours with a certified athletic trainer. Athletic training faculty will review application materials and select qualified individuals for an interview with a committee of athletic training faculty, athletic training staff, and current athletic training students.

Optimal enrollment for this program and its graduate component is ten students per academic year. Greater than ten students would create scheduling issues related to practical examinations in each course due to the time involvement required for each student (average of 30 minutes per student in a one-on-one setting) without an increase in faculty.

Student Retention

The sports medicine concentration has currently retained the following: 3 of 5 juniors (60% retention), 6 of 7 sophomores (85.7%), 9 of 13 freshmen (69%) for the 2018-19 academic year.

-four (4) students transferred to the EXS human performance concentration

-one (1) student transferred to EXS sports and leisure concentration

-two (2) students left the university

+two (2) students transferred from other majors (biology, information systems management)

The enrollment in the Master of Athletic Training program is currently 3 as the junior class applied and were accepted in Spring 2019 to begin MAT coursework in Fall 2019.

Is the Program Externally Accredited

Yes (selected)

No

External Accreditation

Name the Accrediting Agency or entity including the last review/approval. Is there an accrediting body for the field of study? If yes, what is the name of the group. Is the program seeking accreditation? If no, why?

Commission on Accreditation of Athletic Training Education (CAATE) is the external accrediting organization. CAATE accredits programs on a five or ten year period. The William Woods Athletic Training Program is currently accredited through the 2018-19 academic year. Additionally, the program director submits annual progress reports to the Board of Directors for review of compliance with the CAATE standards.

The Sports Medicine concentration is not yet accredited by CAATE. The final undergraduate cohort graduated in Spring 2019; accreditation for the Master of Athletic Training program will be sought beginning Fall 2019. Once accreditation is obtained, it will apply to the courses taken during the fourth/senior year which will serve as dual credit towards the Master of Athletic Training program.

Marketing Materials

Please reflect on the current marketing materials used for the program. Detail what documents you are reviewing and attach a screenshot of any webpages or materials that you cannot include as a document. What changes, if any should be made to the material? Are there recommendations for how or where to market the program?

The Master of Athletic Training program has used FaceBook for advertising for the past four (4) years. This year, a Twitter feed and Instagram page were added to target a younger audience.

A formal marketing campaign was suggested but was advised against until the Master of Athletic Training program gains accreditation.

The MAT program has also applied to join the Athletic Training Central Application Services (ATCAS) site.

Marketing Material

Program Assessment

Standard/Outcome

Identifier	Description
WWU2016.1	Major Field Competence: Students will demonstrate excellence in an academic or professional discipline, and engage in the process of academic discovery.
WWU2016.2	Ethics: Students will exhibit values and behaviors that address self- respect and respect for others that will enable success and participation in the larger society.
WWU2016.3	Self-Liberation: Students will develop an honest understanding and appreciation of themselves and others resulting in an ability to make individual decisions.
WWU2016.4	Lifelong Education: Students will possess an intellectual curiosity and desire for continual learning both within and beyond formal education in preparation for participation in a global society.

Additional Standards/Outcomes

Identifier	Description
NATA-EC-5ED.AC	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.
NATA-EC-5ED.AC.1	Explain the legal, moral, and ethical parameters that define the athletic trainer's scope of acute and emergency care.
NATA-EC-5ED.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.
NATA-EC-5ED.AC.11	Determine when suction for airway maintenance is indicated and use according to accepted practice protocols.
NATA-EC-5ED.AC.12	Identify cases when rescue breathing, CPR, and/or AED use is indicated according to current accepted practice protocols.
NATA-EC-5ED.AC.13	Utilize an automated external defibrillator (AED) according to current accepted practice protocols.

NATA-EC-5ED.AC.14	Perform one- and two- person CPR on an infant, child and adult.
NATA-EC-5ED.AC.15	Utilize a bag valve and pocket mask on a child and adult using supplemental oxygen.
NATA-EC-5ED.AC.16	Explain the indications, application, and treatment parameters for supplemental oxygen administration for emergency situations.
NATA-EC-5ED.AC.17	Administer supplemental oxygen with adjuncts (eg, non-rebreather mask, nasal cannula).
NATA-EC-5ED.AC.18	Assess oxygen saturation using a pulse oximeter and interpret the results to guide decision making.
NATA-EC-5ED.AC.19	Explain the proper procedures for managing external hemorrhage (eg, direct pressure, pressure points, tourniquets) and the rationale for use of each.
NATA-EC-5ED.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.
NATA-EC-5ED.AC.20	Select and use the appropriate procedure for managing external hemorrhage.
NATA-EC-5ED.AC.21	Explain aseptic or sterile techniques, approved sanitation methods, and universal precautions used in the cleaning, closure, and dressing of wounds.
NATA-EC-5ED.AC.22	Select and use appropriate procedures for the cleaning, closure, and dressing of wounds, identifying when referral is necessary.
NATA-EC-5ED.AC.23	Use cervical stabilization devices and techniques that are appropriate to the circumstances of an injury.
NATA-EC-5ED.AC.24	Demonstrate proper positioning and immobilization of a patient with a suspected spinal cord injury.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.AC.27	Explain the role of core body temperature in differentiating between exertional heat stroke, hyponatremia, and head injury.
NATA-EC-5ED.AC.28	Differentiate the different methods for assessing core body temperature.
NATA-EC-5ED.AC.29	Assess core body temperature using a rectal probe.
NATA-EC-5ED.AC.3	Describe the hospital trauma level system and its role in the transportation decision-making process.
NATA-EC-5ED.AC.30	Explain the role of rapid full body cooling in the emergency management of exertional heat stroke.
NATA-EC-5ED.AC.31	Assist the patient in the use of a nebulizer treatment for an asthmatic attack.
NATA-EC-5ED.AC.32	Determine when use of a metered-dose inhaler is warranted based on a patient's condition.
NATA-EC-5ED.AC.33	Instruct a patient in the use of a meter-dosed inhaler in the presence of asthma-related bronchospasm.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.AC.36	Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for:

NATA-EC-5ED.AC.36	Instruct the patient in home care and self-treatment plans for acute conditions.
NATA-EC-5ED.AC.36a	sudden cardiac arrest
NATA-EC-5ED.AC.36b	brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture
NATA-EC-5ED.AC.36c	cervical, thoracic, and lumbar spine trauma
NATA-EC-5ED.AC.36d	heat illness including heat cramps, heat exhaustion, exertional heat stroke, and hyponatremia
NATA-EC-5ED.AC.36e	exertional sickling associated with sickle cell trait
NATA-EC-5ED.AC.36f	rhabdomyolysis
NATA-EC-5ED.AC.36g	internal hemorrhage
NATA-EC-5ED.AC.36h	diabetic emergencies including hypoglycemia and ketoacidosis
NATA-EC-5ED.AC.36i	asthma attacks
NATA-EC-5ED.AC.36j	systemic allergic reaction, including anaphylactic shock
NATA-EC-5ED.AC.36k	epileptic and non-epileptic seizures
NATA-EC-5ED.AC.36l	shock
NATA-EC-5ED.AC.36m	hypothermia, frostbite
NATA-EC-5ED.AC.36n	toxic drug overdoses
NATA-EC-5ED.AC.36o	local allergic reaction
NATA-EC-5ED.AC.37	Select and apply appropriate splinting material to stabilize an injured body area.
NATA-EC-5ED.AC.38	Apply appropriate immediate treatment to protect the injured area and minimize the effects of hypoxic and enzymatic injury.
NATA-EC-5ED.AC.39	Select and implement the appropriate ambulatory aid based on the patient's injury and activity and participation restrictions.
NATA-EC-5ED.AC.4	Demonstrate the ability to perform scene, primary, and secondary surveys.
NATA-EC-5ED.AC.40	Determine the proper transportation technique based on the patient's condition and findings of the immediate examination.
NATA-EC-5ED.AC.41	Identify the criteria used in the decision-making process to transport the injured patient for further medical examination.
NATA-EC-5ED.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.
NATA-EC-5ED.AC.5	Obtain a medical history appropriate for the patient's ability to respond.
NATA-EC-5ED.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.

NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.CC.a	Musculoskeletal
NATA-EC-5ED.CC.b	Integumentary
NATA-EC-5ED.CC.c	Neurological
NATA-EC-5ED.CC.d	Cardiovascular
NATA-EC-5ED.CC.e	Endocrine
NATA-EC-5ED.CC.f	Pulmonary
NATA-EC-5ED.CC.g	Gastrointestinal
NATA-EC-5ED.CC.h	Hepatobiliary
NATA-EC-5ED.CC.i	Immune
NATA-EC-5ED.CC.j	Renal and urogenital
NATA-EC-5ED.CC.k	The face, including maxillofacial region and mouth
NATA-EC-5ED.CC.l	Eye, ear, nose, and throat
NATA-EC-5ED.CE	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.
NATA-EC-5ED.CE.1	Describe the normal structures and interrelated functions of the body systems.
NATA-EC-5ED.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.
NATA-EC-5ED.CE.11	Explain the creation of clinical prediction rules in the diagnosis and prognosis of various clinical conditions.
NATA-EC-	Apply clinical prediction rules (eg, Ottawa Ankle Rules) during clinical examination procedures.

5ED.CE.12	
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.CE.15	Demonstrate the ability to modify the diagnostic examination process according to the demands of the situation and patient responses.
NATA-EC-5ED.CE.16	Recognize the signs and symptoms of catastrophic and emergent conditions and demonstrate appropriate referral decisions.
NATA-EC-5ED.CE.17	Use clinical reasoning skills to formulate an appropriate clinical diagnosis for common illness/disease and orthopedic injuries/conditions.
NATA-EC-5ED.CE.18	Incorporate the concept of differential diagnosis into the examination process.
NATA-EC-5ED.CE.19	Determine criteria and make decisions regarding return to activity and/or sports participation based on the patient's current status.
NATA-EC-5ED.CE.2	Describe the normal anatomical, systemic, and physiological changes associated with the lifespan.
NATA-EC-5ED.CE.20	Use standard techniques and procedures for the clinical examination of common injuries, conditions, illnesses, and diseases including, but not limited to:
NATA-EC-5ED.CE.20a	history taking
NATA-EC-5ED.CE.20b	inspection/observation
NATA-EC-5ED.CE.20c	palpation
NATA-EC-5ED.CE.20d	functional assessment
NATA-EC-5ED.CE.20e	selective tissue testing techniques / special tests
NATA-EC-5ED.CE.20f	neurological assessments (sensory, motor, reflexes, balance, cognitive function)
NATA-EC-5ED.CE.20g	respiratory assessments (auscultation, percussion, respirations, peak-flow)
NATA-EC-5ED.CE.20h	circulatory assessments (pulse, blood pressure, auscultation)
NATA-EC-5ED.CE.20i	abdominal assessments (percussion, palpation, auscultation)
NATA-EC-5ED.CE.20j	other clinical assessments (otoscope, urinalysis, glucometer, temperature, ophthalmoscope)
NATA-EC-5ED.CE.21	Assess and interpret findings from a physical examination that is based on the patient's clinical presentation. This exam can include:
NATA-EC-5ED.CE.21a	Assessment of posture, gait, and movement patterns
NATA-EC-5ED.CE.21b	Palpation
NATA-EC-5ED.CE.21c	Muscle function assessment
NATA-EC-5ED.CE.21d	Assessment of quantity and quality of osteokinematic joint motion

NATA-EC-5ED.CE.21e	Capsular and ligamentous stress testing
NATA-EC-5ED.CE.21f	Joint play (arthrokinematics)
NATA-EC-5ED.CE.21g	Selective tissue examination techniques / special tests
NATA-EC-5ED.CE.21h	Neurologic function (sensory, motor, reflexes, balance, cognition)
NATA-EC-5ED.CE.21i	Cardiovascular function (including differentiation between normal and abnormal heart sounds, blood pressure, and heart rate)
NATA-EC-5ED.CE.21j	Pulmonary function (including differentiation between normal breath sounds, percussion sounds, number and characteristics of respirations, peak expiratory flow)
NATA-EC-5ED.CE.21k	Gastrointestinal function (including differentiation between normal and abnormal bowel sounds)
NATA-EC-5ED.CE.21l	Genitourinary function (urinalysis)
NATA-EC-5ED.CE.21m	Ocular function (vision, ophthalmoscope)
NATA-EC-5ED.CE.21n	Function of the ear, nose, and throat (including otoscopic evaluation)
NATA-EC-5ED.CE.21o	Dermatological assessment
NATA-EC-5ED.CE.21p	Other assessments (glucometer, temperature)
NATA-EC-5ED.CE.22	Determine when the findings of an examination warrant referral of the patient.
NATA-EC-5ED.CE.23	Describe current setting-specific (eg, high school, college) and activity-specific rules and guidelines for managing injuries and illnesses.
NATA-EC-5ED.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.
NATA-EC-5ED.CE.4	Describe the principles and concepts of body movement, including normal osteokinematics and arthrokinematics.
NATA-EC-5ED.CE.5	Describe the influence of pathomechanics on function.
NATA-EC-5ED.CE.6	Describe the basic principles of diagnostic imaging and testing and their role in the diagnostic process.
NATA-EC-5ED.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.
NATA-EC-5ED.CE.8	Explain the role and importance of functional outcome measures in clinical practice and patient health-related quality of life.
NATA-EC-5ED.CE.9	Identify functional and patient-centered quality of life outcome measures appropriate for use in athletic training practice.
NATA-EC-5ED.CIP	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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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).
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.EBP	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.
NATA-EC-5ED.EBP.1	Define evidence-based practice as it relates to athletic training clinical practice.
NATA-EC-5ED.EBP.10	Determine the effectiveness and efficacy of an athletic training intervention utilizing evidence-based practice concepts.
NATA-EC-5ED.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).
NATA-EC-5ED.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).
NATA-EC-5ED.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.
NATA-EC-5ED.EBP.14	Apply and interpret clinical outcomes to assess patient status, progress, and change using psychometrically sound outcome instruments.
NATA-EC-5ED.EBP.2	Explain the role of evidence in the clinical decision making process.
NATA-EC-5ED.EBP.3	Describe and differentiate the types of quantitative and qualitative research, research components, and levels of research evidence.
NATA-EC-5ED.EBP.4	Describe a systematic approach (eg, five step approach) to create and answer a clinical question through review and application of existing research.
NATA-EC-5ED.EBP.5	Develop a relevant clinical question using a pre-defined question format (eg, PICO= Patients, Intervention, Comparison, Outcomes; PIO = Patients, Intervention, Outcomes).
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.EBP.8	Describe the differences between narrative reviews, systematic reviews, and metaanalyses.
NATA-EC-5ED.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.
NATA-EC-5ED.HA	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.

NATA-EC-5ED.HA.1	Describe the role of the athletic trainer and the delivery of athletic training services within the context of the broader healthcare system.
NATA-EC-5ED.HA.10	Identify and explain the statutes that regulate the privacy and security of medical records.
NATA-EC-5ED.HA.11	Use contemporary documentation strategies to effectively communicate with patients, physicians, insurers, colleagues, administrators, and parents or family members.
NATA-EC-5ED.HA.12	Use a comprehensive patient-file management system for appropriate chart documentation, risk management, outcomes, and billing.
NATA-EC-5ED.HA.13	Define state and federal statutes that regulate employment practices.
NATA-EC-5ED.HA.14	Describe principles of recruiting, selecting, hiring, and evaluating employees.
NATA-EC-5ED.HA.15	Identify principles of recruiting, selecting, employing, and contracting with physicians and other medical and healthcare personnel in the deployment of healthcare services.
NATA-EC-5ED.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.
NATA-EC-5ED.HA.17	Identify key regulatory agencies that impact healthcare facilities, and describe their function in the regulation and overall delivery of healthcare.
NATA-EC-5ED.HA.18	Describe the basic legal principles that apply to an athletic trainer's responsibilities.
NATA-EC-5ED.HA.19	Identify components of a risk management plan to include security, fire, electrical and equipment safety, emergency preparedness, and hazardous chemicals.
NATA-EC-5ED.HA.2	Describe the impact of organizational structure on the daily operations of a healthcare facility.
NATA-EC-5ED.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.
NATA-EC-5ED.HA.21	Develop comprehensive, venue-specific emergency action plans for the care of acutely injured or ill individuals.
NATA-EC-5ED.HA.22	Develop specific plans of care for common potential emergent conditions (eg, asthma attack, diabetic emergency).
NATA-EC-5ED.HA.23	Identify and explain the recommended or required components of a pre-participation examination based on appropriate authorities' rules, guidelines, and/or recommendations.
NATA-EC-5ED.HA.24	Describe a plan to access appropriate medical assistance on disease control, notify medical authorities, and prevent disease epidemics.
NATA-EC-5ED.HA.25	Describe common health insurance models, insurance contract negotiation, and the common benefits and exclusions identified within these models.
NATA-EC-5ED.HA.26	Describe the criteria for selection, common features, specifications, and required documentation needed for secondary, excess accident, and catastrophic health insurance.
NATA-EC-5ED.HA.27	Describe the concepts and procedures for revenue generation and reimbursement.
NATA-EC-5ED.HA.28	Understand the role of and use diagnostic and procedural codes when documenting patient care.
NATA-EC-5ED.HA.29	Explain typical administrative policies and procedures that govern first aid and emergency care.
NATA-EC-5ED.HA.3	Describe the role of strategic planning as a means to assess and promote organizational improvement.
NATA-EC-5ED.HA.30	Describe the role and functions of various healthcare providers and protocols that govern the referral of patients to these professionals.

NATA-EC-5ED.HA.4	Describe the conceptual components of developing and implementing a basic business plan.
NATA-EC-5ED.HA.5	Describe basic healthcare facility design for a safe and efficient clinical practice setting.
NATA-EC-5ED.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.
NATA-EC-5ED.HA.7	Assess the value of the services provided by an athletic trainer (eg, return on investment).
NATA-EC-5ED.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.
NATA-EC-5ED.HA.9	Identify the components that comprise a comprehensive medical record.
NATA-EC-5ED.PD	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.
NATA-EC-5ED.PD.1	Summarize the athletic training profession's history and development and how current athletic training practice has been influenced by its past.
NATA-EC-5ED.PD.10	Develop healthcare educational programming specific to the target audience (eg, clients/patients, healthcare personnel, administrators, parents, general public).
NATA-EC-5ED.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.
NATA-EC-5ED.PD.12	Identify mechanisms by which athletic trainers influence state and federal healthcare regulation.
NATA-EC-5ED.PD.2	Describe the role and function of the National Athletic Trainers' Association and its influence on the profession.
NATA-EC-5ED.PD.3	Describe the role and function of the Board of Certification, the Commission on accreditation of Athletic Training Education, and state regulatory boards.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PD.6	Explain the process of obtaining and maintaining necessary local, state, and national credentials for the practice of athletic training.
NATA-EC-5ED.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.
NATA-EC-5ED.PD.8	Differentiate among the preparation, scopes of practice, and roles and responsibilities of healthcare providers and other professionals with whom athletic trainers interact.
NATA-EC-5ED.PD.9	Specify when referral of a client/patient to another healthcare provider is warranted and formulate and implement strategies to facilitate that referral.
NATA-EC-5ED.PHP	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).
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.10	Explain the principles of the body's thermoregulatory mechanisms as they relate to heat gain and heat loss.
NATA-EC-5ED.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).
NATA-EC-5ED.PHP.12	Summarize current practice guidelines related to physical activity during extreme weather conditions (eg, heat, cold, lightning, wind).
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.15	Use a glucometer to monitor blood glucose levels, determine participation status, and make referral decisions.
NATA-EC-5ED.PHP.16	Use a peak-flow meter to monitor a patient's asthma symptoms, determine participation status, and make referral decisions.
NATA-EC-5ED.PHP.17	Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:
NATA-EC-5ED.PHP.17a	Cardiac arrhythmia or arrest
NATA-EC-5ED.PHP.17b	Asthma
NATA-EC-5ED.PHP.17c	Traumatic brain injury
NATA-EC-5ED.PHP.17d	Exertional heat stroke
NATA-EC-5ED.PHP.17e	Hyponatremia
NATA-EC-5ED.PHP.17f	Exertional sickling
NATA-EC-5ED.PHP.17g	Anaphylactic shock
NATA-EC-5ED.PHP.17h	Cervical spine injury
NATA-EC-5ED.PHP.17i	Lightning strike
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.19	Instruct clients/patients in the basic principles of ergonomics and their relationship to the prevention of illness and injury.
NATA-EC-5ED.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).
NATA-EC-5ED.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.

NATA-EC-5ED.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.
NATA-EC-5ED.PHP.22	Fit standard protective equipment following manufacturers??? guidelines.
NATA-EC-5ED.PHP.23	Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.25	Describe the role of exercise in maintaining a healthy lifestyle and preventing chronic disease.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.28	Administer and interpret fitness tests to assess a client???s/patient???s physical status and readiness for physical activity.
NATA-EC-5ED.PHP.29	Explain the basic concepts and practice of fitness and wellness screening.
NATA-EC-5ED.PHP.3	Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.32	Describe the role of nutrition in enhancing performance, preventing injury or illness, and maintaining a healthy lifestyle.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.35	Describe the proper intake, sources of, and effects of micro- and macronutrients on performance, health, and disease.
NATA-EC-5ED.PHP.36	Describe current guidelines for proper hydration and explain the consequences of improper fluid/electrolyte replacement.
NATA-EC-5ED.PHP.37	Identify, analyze, and utilize the essential components of food labels to determine the content, quality, and appropriateness of food products.
NATA-EC-5ED.PHP.38	Describe nutritional principles that apply to tissue growth and repair.
NATA-EC-5ED.PHP.39	Describe changes in dietary requirements that occur as a result of changes in an individual???s health, age, and activity level.
NATA-EC-5ED.PHP.4	Explain how the effectiveness of a prevention strategy can be assessed using clinical outcomes, surveillance, or evaluation data.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.41	Identify the foods and fluids that are most appropriate for pre-activity, activity, and recovery meals/snacks.
NATA-EC-5ED.PHP.42	Explain how changes in the type and intensity of physical activity influence the energy and nutritional demands placed on the client/patient.

NATA-EC-5ED.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.
NATA-EC-5ED.PHP.44	Assess body composition by validated techniques.
NATA-EC-5ED.PHP.45	Describe contemporary weight management methods and strategies needed to support activities of daily life and physical activity.
NATA-EC-5ED.PHP.46	Identify and describe the signs, symptoms, physiological, and psychological responses of clients/patients with disordered eating or eating disorders.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PHP.5	Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.
NATA-EC-5ED.PHP.6	Summarize the epidemiology data related to the risk of injury and illness associated with participation in physical activity.
NATA-EC-5ED.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.
NATA-EC-5ED.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).
NATA-EC-5ED.PHP.9	Explain the role of the preparticipation physical exam in identifying conditions that might predispose the athlete to injury or illness.
NATA-EC-5ED.PS	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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PS.11	Describe the role of various mental healthcare providers (eg, psychiatrists, psychologists, counselors, social workers) that may comprise a mental health referral network.
NATA-EC-5ED.PS.12	Identify and refer clients/patients in need of mental healthcare.
NATA-EC-5ED.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.
NATA-EC-5ED.PS.14	Describe the psychological and sociocultural factors associated with common eating disorders.
NATA-EC-5ED.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.
NATA-EC-5ED.PS.16	Formulate a referral for an individual with a suspected mental health or substance abuse problem.

NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.PS.2	Explain the theoretical background of psychological and emotional responses to injury and forced inactivity (eg, cognitive appraisal model, stress response model).
NATA-EC-5ED.PS.3	Describe how psychosocial considerations affect clinical decision-making related to return to activity or participation (eg, motivation, confidence).
NATA-EC-5ED.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.
NATA-EC-5ED.PS.5	Summarize contemporary theory regarding educating patients of all ages and cultural backgrounds to effect behavioral change.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.TI	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.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.10	Integrate self-treatment into the intervention when appropriate, including instructing the patient regarding self-treatment plans.
NATA-EC-5ED.TI.11	Design therapeutic interventions to meet specified treatment goals.
NATA-EC-5ED.TI.11a	Assess the patient to identify indications, contraindications, and precautions applicable to the intended intervention.
NATA-EC-5ED.TI.11b	Position and prepare the patient for various therapeutic interventions.
NATA-EC-5ED.TI.11c	Describe the expected effects and potential adverse reactions to the patient.
NATA-EC-5ED.TI.11d	Instruct the patient how to correctly perform rehabilitative exercises.

NATA-EC-5ED.TI.11e	Apply the intervention, using parameters appropriate to the intended outcome.
NATA-EC-5ED.TI.11f	Reassess the patient to determine the immediate impact of the intervention.
NATA-EC-5ED.TI.12	Use the results of on-going clinical examinations to determine when a therapeutic intervention should be progressed, regressed or discontinued.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.14	Describe the use of joint mobilization in pain reduction and restoration of joint mobility.
NATA-EC-5ED.TI.15	Perform joint mobilization techniques as indicated by examination findings.
NATA-EC-5ED.TI.16	Fabricate and apply taping, wrapping, supportive, and protective devices to facilitate return to function.
NATA-EC-5ED.TI.17	Analyze gait and select appropriate instruction and correction strategies to facilitate safe progression to functional gait pattern.
NATA-EC-5ED.TI.18	Explain the relationship between posture, biomechanics, and ergonomics and the need to address these components in a therapeutic intervention.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.2	Compare and contrast contemporary theories of pain perception and pain modulation.
NATA-EC-5ED.TI.20	Inspect therapeutic equipment and the treatment environment for potential safety hazards.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.23	Use an electronic drug resource to locate and identify indications, contraindications, precautions, and adverse reactions for common prescription and nonprescription medications.
NATA-EC-5ED.TI.24	Explain the major concepts of pharmacokinetics and the influence that exercise might have on these processes.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.27	Describe the common routes used to administer medications and their advantages and disadvantages.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.29	Describe how common pharmacological agents influence pain and healing and their influence on various therapeutic interventions.
NATA-EC-5ED.TI.3	Differentiate between palliative and primary pain-control interventions.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.4	Analyze the impact of immobilization, inactivity, and mobilization on the body systems (eg, cardiovascular, pulmonary, musculoskeletal) and injury response.
NATA-EC-5ED.TI.5	Compare and contrast the variations in the physiological response to injury and healing across the lifespan.
NATA-EC-5ED.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.
NATA-EC-5ED.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.
NATA-EC-5ED.TI.8	Explain the theory and principles relating to expected physiological response(s) during and following therapeutic interventions.
NATA-EC-5ED.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).

General Education Alignment to Program

How do the General Education criteria align with the Program Objectives? What courses within your program build upon skills learned in general education courses (please list the program course and the general education criteria). The General Education clusters are: Critical Analysis, Creative Expression, Quantitative Inquiry, and Society & the Individual. See attached for more detailed breakdown.

The Sports Medicine / Pre-Athletic Training concentration utilizes information from several aspects of the William Woods University general education requirements to develop future clinicians into well-rounded individuals.

Quantitative Analysis

The sciences provide a significant foundation for future coursework. The Commission on Accreditation of Athletic Training Education (CAATE) has mandated the increase in natural science education in preparation for graduate level coursework required by 2022. The future athletic training student will be required to have foundational courses in biology to build on for advanced anatomy and physiology coursework, chemistry to allow for the increased educational requirements related to pharmacological management, and physics to understand advanced biomechanics of assessment and interventions. Mathematics, especially statistics, will have an increased emphasis as well due to the increase in reading, analyzing, and conducting research.

Creative Expression

Students in the Sports Medicine / Pre-Athletic training concentration will need to not only perform examination and intervention skills but they must be able to communicate those skills as well. Written communication consists of documentation of exam findings and interventions to relay information to referring physicians, other treating clinicians, and third-party payers for reimbursement. The athletic trainer must also be able to communicate exam findings verbally to the patient to educate him/her about the current condition as well as be able to verbally explain the purpose and expectations of the prescribed interventions.

Critical Analysis

The future athletic trainer must be an expert in analysis. Clinicians must analyze extensive information received from the patient in both subjective complaints and objective findings to determine tissue-specific impairments and formulate a treatment plan to address them. Clinicians establish treatment plans through evidence-based practice that relies on the

analysis of research and the clinician's own experiences as well as patient expectations. The clinician must also perform ongoing reevaluations to determine the patient's response to treatments as well as progress towards therapeutic goals.

Society and the Individual

The future athletic trainer must be well versed in diversity. In the traditional setting of high school, college, and professional athletics, athletic trainers work with a variety of patients with varying ethnic, cultural, and socioeconomic backgrounds; many may also have English as their second language. As athletic trainers continue to move into emerging settings, there will be a larger age range of patients in settings such as industrial medicine, tactical medicine, and athletic trainers in physicians' offices. It is essential for the clinician to be able to interact respectfully with a diverse population to develop the patient's trust and establish a therapeutic alliance.

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Curriculum Map

A - Assessed
R - Reinforced
I - Introduced
M - Master

ATR Curriculum Map

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.AC 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.						R			
NATA-EC-5ED.AC.1 Explain the legal, moral, and ethical parameters that define the athletic trainer's scope of acute and emergency care.						R			
NATA-EC-5ED.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.						R			

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.AC.36 Instruct the patient in home care and self-treatment plans for acute conditions.									
NATA-EC-5ED.AC.36a sudden cardiac arrest									
NATA-EC-5ED.AC.36b brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture									
NATA-EC-5ED.AC.36c cervical, thoracic, and lumbar spine trauma									
NATA-EC-5ED.AC.36d heat illness including heat cramps, heat exhaustion, exertional heat stroke, and hyponatremia									
NATA-EC-5ED.AC.36e exertional sickling associated with sickle cell trait									
NATA-EC-5ED.AC.36f rhabdomyolysis									
NATA-EC-5ED.AC.36g internal hemorrhage									
NATA-EC-5ED.AC.36h diabetic emergencies including hypoglycemia and ketoacidosis									
NATA-EC-5ED.AC.36i asthma attacks									
NATA-EC-5ED.AC.36j systemic allergic reaction, including anaphylactic shock									
NATA-EC-5ED.AC.36k epileptic and non-epileptic seizures									
NATA-EC-5ED.AC.36l shock									
NATA-EC-5ED.AC.36m hypothermia, frostbite									
NATA-EC-5ED.AC.36n toxic drug overdoses									
NATA-EC-5ED.AC.36o local allergic reaction									
NATA-EC-5ED.AC.37 Select and apply appropriate splinting material to stabilize an injured body area.						R			
NATA-EC-5ED.AC.38 Apply appropriate immediate treatment to protect the injured area and minimize the effects of hypoxic and enzymatic injury.						R			
NATA-EC-5ED.AC.39 Select and implement the appropriate ambulatory aid based on the patient's injury and activity and participation restrictions.						R			

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.CE.9 Identify functional and patient-centered quality of life outcome measures appropriate for use in athletic training practice.									
NATA-EC-5ED.CIP 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.									
NATA-EC-5ED.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.									
NATA-EC-5ED.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						A, R			

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.PHP.10 Explain the principles of the body's thermoregulatory mechanisms as they relate to heat gain and heat loss.						R, A			
NATA-EC-5ED.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).						R, A			
NATA-EC-5ED.PHP.12 Summarize current practice guidelines related to physical activity during extreme weather conditions (eg, heat, cold, lightning, wind).						R, A			
NATA-EC-5ED.PHP.13 Obtain and interpret environmental data (wet bulb globe temperature [WBGT], sling psychrometer, lightning detection devices) to make clinical decisions regarding the scheduling, type, and duration of physical activity.						R, A			
NATA-EC-5ED.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.						R, A			
NATA-EC-5ED.PHP.15 Use a glucometer to monitor blood glucose levels, determine participation status, and make referral decisions.						R, A			
NATA-EC-5ED.PHP.16 Use a peak-flow meter to monitor a patient's asthma symptoms, determine participation status, and make referral decisions.						R, A			
NATA-EC-5ED.PHP.17 Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:						R, A			
NATA-EC-5ED.PHP.17a Cardiac arrhythmia or arrest						R, A			
NATA-EC-5ED.PHP.17b Asthma						R, A			
NATA-EC-5ED.PHP.17c Traumatic brain injury						R, A			
NATA-EC-5ED.PHP.17d Exertional heat stroke						R, A			
NATA-EC-5ED.PHP.17e Hyponatremia						R, A			

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.PHP.17f Exertional sickling						R, A			
NATA-EC-5ED.PHP.17g Anaphylactic shock						R, A			
NATA-EC-5ED.PHP.17h Cervical spine injury						R, A			
NATA-EC-5ED.PHP.17i Lightning strike						R, A			
NATA-EC-5ED.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.									
NATA-EC-5ED.PHP.19 Instruct clients/patients in the basic principles of ergonomics and their relationship to the prevention of illness and injury.									
NATA-EC-5ED.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).									
NATA-EC-5ED.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.	I					R, A			
NATA-EC-5ED.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.						R, A			
NATA-EC-5ED.PHP.22 Fit standard protective equipment following manufacturers' guidelines.						R, A			
NATA-EC-5ED.PHP.23 Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.						R, A			
NATA-EC-5ED.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.									
NATA-EC-5ED.PHP.25 Describe the role of exercise in maintaining a healthy lifestyle and preventing chronic disease.			R						
NATA-EC-5ED.PHP.26 Identify and describe the standard tests, test equipment, and testing			R, A						

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
protocols that are used for measuring fitness, body composition, posture, flexibility, muscular strength, power, speed, agility, and endurance.									
NATA-EC-5ED.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.			R						
NATA-EC-5ED.PHP.28 Administer and interpret fitness tests to assess a client/patient's physical status and readiness for physical activity.			R						
NATA-EC-5ED.PHP.29 Explain the basic concepts and practice of fitness and wellness screening.			R						
NATA-EC-5ED.PHP.3 Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.									
NATA-EC-5ED.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.			R						
NATA-EC-5ED.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.			R						
NATA-EC-5ED.PHP.32 Describe the role of nutrition in enhancing performance, preventing injury or illness, and maintaining a healthy lifestyle.		A, R							
NATA-EC-5ED.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.									
NATA-EC-5ED.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.									
NATA-EC-5ED.PHP.35 Describe the proper intake, sources of, and effects of micro- and macronutrients on performance, health, and disease.			R						
NATA-EC-5ED.PHP.36 Describe current guidelines for proper hydration and explain the consequences of improper fluid/electrolyte replacement.			R						

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.PHP.37 Identify, analyze, and utilize the essential components of food labels to determine the content, quality, and appropriateness of food products.			R						
NATA-EC-5ED.PHP.38 Describe nutritional principles that apply to tissue growth and repair.			R						
NATA-EC-5ED.PHP.39 Describe changes in dietary requirements that occur as a result of changes in an individual's health, age, and activity level.		A, R							
NATA-EC-5ED.PHP.4 Explain how the effectiveness of a prevention strategy can be assessed using clinical outcomes, surveillance, or evaluation data.									
NATA-EC-5ED.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.			R						
NATA-EC-5ED.PHP.41 Identify the foods and fluids that are most appropriate for pre-activity, activity, and recovery meals/snacks.			R						
NATA-EC-5ED.PHP.42 Explain how changes in the type and intensity of physical activity influence the energy and nutritional demands placed on the client/patient.			R						
NATA-EC-5ED.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.			R						
NATA-EC-5ED.PHP.44 Assess body composition by validated techniques.			R						
NATA-EC-5ED.PHP.45 Describe contemporary weight management methods and strategies needed to support activities of daily life and physical activity.			R						
NATA-EC-5ED.PHP.46 Identify and describe the signs, symptoms, physiological, and psychological responses of clients/patients with disordered eating or eating disorders.									
NATA-EC-5ED.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.									
NATA-EC-5ED.PHP.48 Explain the known usage patterns, general effects, and short-			R						

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
NATA-EC-5ED.TI.24 Explain the major concepts of pharmacokinetics and the influence that exercise might have on these processes.									I
NATA-EC-5ED.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.									I
NATA-EC-5ED.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.									I
NATA-EC-5ED.TI.27 Describe the common routes used to administer medications and their advantages and disadvantages.									I
NATA-EC-5ED.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.									
NATA-EC-5ED.TI.29 Describe how common pharmacological agents influence pain and healing and their influence on various therapeutic interventions.									A, I
NATA-EC-5ED.TI.3 Differentiate between palliative and primary pain-control interventions.									I, A
NATA-EC-5ED.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.									I
NATA-EC-5ED.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.									I
NATA-EC-5ED.TI.4 Analyze the impact of immobilization, inactivity, and mobilization on the body systems (eg, cardiovascular, pulmonary, musculoskeletal) and injury response.							I		
NATA-EC-5ED.TI.5 Compare and contrast the variations in the physiological response to	I						R, A		

	EHP 305	EHP 310	EHP 315	EHP 405	EHP 460	ATR 405	ATR 421	ATR 422	ATR 431
injury and healing across the lifespan.									
NATA-EC-5ED.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.									I
NATA-EC-5ED.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.							I		
NATA-EC-5ED.TI.8 Explain the theory and principles relating to expected physiological response(s) during and following therapeutic interventions.									I, A
NATA-EC-5ED.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).									I

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.AC 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.		R					
NATA-EC-5ED.AC.1 Explain the legal, moral, and ethical parameters that define the athletic trainer's scope of acute and emergency care.							
NATA-EC-5ED.AC.10 Establish and maintain an airway, including the use of oro- and nasopharyngeal airways, and							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
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.							
NATA-EC-5ED.AC.11 Determine when suction for airway maintenance is indicated and use according to accepted practice protocols.							
NATA-EC-5ED.AC.12 Identify cases when rescue breathing, CPR, and/or AED use is indicated according to current accepted practice protocols.							
NATA-EC-5ED.AC.13 Utilize an automated external defibrillator (AED) according to current accepted practice protocols.							
NATA-EC-5ED.AC.14 Perform one- and two- person CPR on an infant, child and adult.							
NATA-EC-5ED.AC.15 Utilize a bag valve and pocket mask on a child and adult using supplemental oxygen.							
NATA-EC-5ED.AC.16 Explain the indications, application, and treatment parameters for supplemental oxygen administration for emergency situations.		R					
NATA-EC-5ED.AC.17 Administer supplemental oxygen with adjuncts (eg, non-rebreather mask, nasal cannula).		R					
NATA-EC-5ED.AC.18 Assess oxygen saturation using a pulse oximeter and interpret the results to guide decision making.		R					
NATA-EC-5ED.AC.19 Explain the proper procedures for managing external hemorrhage (eg, direct pressure, pressure points, tourniquets) and the rationale for use of each.		R					
NATA-EC-5ED.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.							
NATA-EC-5ED.AC.20 Select and use the appropriate procedure for managing external hemorrhage.		R					
NATA-EC-5ED.AC.21 Explain aseptic or sterile techniques, approved sanitation methods, and universal precautions used in the cleaning, closure, and dressing of wounds.							
NATA-EC-5ED.AC.22 Select and use appropriate procedures for the cleaning, closure, and dressing of wounds, identifying when referral is necessary.							
NATA-EC-5ED.AC.23 Use cervical stabilization devices and techniques that are appropriate to the circumstances of an injury.							
NATA-EC-5ED.AC.24 Demonstrate proper positioning and immobilization of a patient with a suspected spinal cord injury.							
NATA-EC-5ED.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.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.AC.27 Explain the role of core body temperature in differentiating between exertional heat stroke, hyponatremia, and head injury.		R					
NATA-EC-5ED.AC.28 Differentiate the different methods for assessing core body temperature.		R					
NATA-EC-5ED.AC.29 Assess core body temperature using a rectal probe.		R					
NATA-EC-5ED.AC.3 Describe the hospital trauma level system and its role in the transportation decision-making process.							
NATA-EC-5ED.AC.30 Explain the role of rapid full body cooling in the emergency management of exertional heat stroke.		R					
NATA-EC-5ED.AC.31 Assist the patient in the use of a nebulizer treatment for an asthmatic attack.		R					
NATA-EC-5ED.AC.32 Determine when use of a metered-dose inhaler is warranted based on a patient's condition.		R					
NATA-EC-5ED.AC.33 Instruct a patient in the use of a meter-dosed inhaler in the presence of asthma-related bronchospasm.		R					
NATA-EC-5ED.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.							
NATA-EC-5ED.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.		R					
NATA-EC-5ED.AC.36 Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for:		R					
NATA-EC-5ED.AC.36 Instruct the patient in home care and self-treatment plans for acute conditions.		R					
NATA-EC-5ED.AC.36a sudden cardiac arrest		R					
NATA-EC-5ED.AC.36b brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture		R					
NATA-EC-5ED.AC.36c cervical, thoracic, and lumbar spine trauma		R					
NATA-EC-5ED.AC.36d heat illness including heat cramps, heat exhaustion, exertional heat stroke, and hyponatremia		R					
NATA-EC-5ED.AC.36e exertional sickling associated with sickle cell trait		R					

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.AC.36f rhabdomyolysis		R					
NATA-EC-5ED.AC.36g internal hemorrhage		R					
NATA-EC-5ED.AC.36h diabetic emergencies including hypoglycemia and ketoacidosis		R					
NATA-EC-5ED.AC.36i asthma attacks		R					
NATA-EC-5ED.AC.36j systemic allergic reaction, including anaphylactic shock		R					
NATA-EC-5ED.AC.36k epileptic and non-epileptic seizures		R					
NATA-EC-5ED.AC.36l shock		R					
NATA-EC-5ED.AC.36m hypothermia, frostbite		R					
NATA-EC-5ED.AC.36n toxic drug overdoses		R					
NATA-EC-5ED.AC.36o local allergic reaction		R					
NATA-EC-5ED.AC.37 Select and apply appropriate splinting material to stabilize an injured body area.							
NATA-EC-5ED.AC.38 Apply appropriate immediate treatment to protect the injured area and minimize the effects of hypoxic and enzymatic injury.							
NATA-EC-5ED.AC.39 Select and implement the appropriate ambulatory aid based on the patient's injury and activity and participation restrictions.							
NATA-EC-5ED.AC.4 Demonstrate the ability to perform scene, primary, and secondary surveys.							
NATA-EC-5ED.AC.40 Determine the proper transportation technique based on the patient's condition and findings of the immediate examination.							
NATA-EC-5ED.AC.41 Identify the criteria used in the decision-making process to transport the injured patient for further medical examination.							
NATA-EC-5ED.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.							
NATA-EC-5ED.AC.5 Obtain a medical history appropriate for the patient's ability to respond.							
NATA-EC-5ED.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.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.CC.a Musculoskeletal							
NATA-EC-5ED.CC.b Integumentary							
NATA-EC-5ED.CC.c Neurological							
NATA-EC-5ED.CC.d Cardiovascular							
NATA-EC-5ED.CC.e Endocrine							
NATA-EC-5ED.CC.f Pulmonary							
NATA-EC-5ED.CC.g Gastrointestinal							
NATA-EC-5ED.CC.h Hepatobiliary							
NATA-EC-5ED.CC.i Immune							
NATA-EC-5ED.CC.j Renal and urogenital							
NATA-EC-5ED.CC.k The face, including maxillofacial region and mouth							
NATA-EC-5ED.CC.l Eye, ear, nose, and throat							
NATA-EC-5ED.CE 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		R	A			R	

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
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.							
NATA-EC-5ED.CE.1 Describe the normal structures and interrelated functions of the body systems.		R	A				
NATA-EC-5ED.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.							
NATA-EC-5ED.CE.11 Explain the creation of clinical prediction rules in the diagnosis and prognosis of various clinical conditions.							
NATA-EC-5ED.CE.12 Apply clinical prediction rules (eg, Ottawa Ankle Rules) during clinical examination procedures.						R	A
NATA-EC-5ED.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.						R	A
NATA-EC-5ED.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.						R	A
NATA-EC-5ED.CE.15 Demonstrate the ability to modify the diagnostic examination process according to the demands of the situation and patient responses.						R	A
NATA-EC-5ED.CE.16 Recognize the signs and symptoms of catastrophic and emergent conditions and demonstrate appropriate referral decisions.		R	A				
NATA-EC-5ED.CE.17 Use clinical reasoning skills to formulate an appropriate clinical diagnosis for common illness/disease and orthopedic injuries/conditions.		R	A			M	A
NATA-EC-5ED.CE.18 Incorporate the concept of differential diagnosis into the examination process.		R	A			M	A
NATA-EC-5ED.CE.19 Determine criteria and make decisions regarding return to activity and/or sports participation based on the patient's current status.							A
NATA-EC-5ED.CE.2 Describe the normal anatomical, systemic, and physiological changes associated with the lifespan.		R	A				

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.CE.20 Use standard techniques and procedures for the clinical examination of common injuries, conditions, illnesses, and diseases including, but not limited to:		R	A			M	A
NATA-EC-5ED.CE.20a history taking						M	A
NATA-EC-5ED.CE.20b inspection/observation						R	
NATA-EC-5ED.CE.20c palpation						R	
NATA-EC-5ED.CE.20d functional assessment						R	
NATA-EC-5ED.CE.20e selective tissue testing techniques / special tests						R	
NATA-EC-5ED.CE.20f neurological assessments (sensory, motor, reflexes, balance, cognitive function)						R	
NATA-EC-5ED.CE.20g respiratory assessments (auscultation, percussion, respirations, peak-flow)		I	A			R	
NATA-EC-5ED.CE.20h circulatory assessments (pulse, blood pressure, auscultation)		R	A				
NATA-EC-5ED.CE.20i abdominal assessments (percussion, palpation, auscultation)		R	A				
NATA-EC-5ED.CE.20j other clinical assessments (otoscope, urinalysis, glucometer, temperature, ophthalmoscope)		R	A				
NATA-EC-5ED.CE.21 Assess and interpret findings from a physical examination that is based on the patient's clinical presentation. This exam can include:						R	
NATA-EC-5ED.CE.21a Assessment of posture, gait, and movement patterns						R	
NATA-EC-5ED.CE.21b Palpation						R	
NATA-EC-5ED.CE.21c Muscle function assessment						R	
NATA-EC-5ED.CE.21d Assessment of quantity and quality of osteokinematic joint motion						R	
NATA-EC-5ED.CE.21e Capsular and ligamentous stress testing						R	
NATA-EC-5ED.CE.21f Joint play (arthrokinematics)						R	
NATA-EC-5ED.CE.21g Selective tissue examination techniques / special tests						R	
NATA-EC-5ED.CE.21h Neurologic function (sensory, motor, reflexes, balance, cognition)						R	
NATA-EC-5ED.CE.21i Cardiovascular function (including differentiation between normal and abnormal heart sounds, blood pressure, and heart rate)		I	A				

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.CE.21j Pulmonary function (including differentiation between normal breath sounds, percussion sounds, number and characteristics of respirations, peak expiratory flow)		I	A				
NATA-EC-5ED.CE.21k Gastrointestinal function (including differentiation between normal and abnormal bowel sounds)		I	A				
NATA-EC-5ED.CE.21l Genitourinary function (urinalysis)		I	A				
NATA-EC-5ED.CE.21m Ocular function (vision, ophthalmoscope)		I	A				
NATA-EC-5ED.CE.21n Function of the ear, nose, and throat (including otoscopic evaluation)		I	A				
NATA-EC-5ED.CE.21o Dermatological assessment		I	A				
NATA-EC-5ED.CE.21p Other assessments (glucometer, temperature)		I	A				
NATA-EC-5ED.CE.22 Determine when the findings of an examination warrant referral of the patient.		I	A			R	
NATA-EC-5ED.CE.23 Describe current setting-specific (eg, high school, college) and activity-specific rules and guidelines for managing injuries and illnesses.		R					
NATA-EC-5ED.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.		M	A				
NATA-EC-5ED.CE.4 Describe the principles and concepts of body movement, including normal osteokinematics and arthrokinematics.							
NATA-EC-5ED.CE.5 Describe the influence of pathomechanics on function.						M	A
NATA-EC-5ED.CE.6 Describe the basic principles of diagnostic imaging and testing and their role in the diagnostic process.						R	
NATA-EC-5ED.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.						R	
NATA-EC-5ED.CE.8 Explain the role and importance of functional outcome measures in clinical practice and patient health-related quality of life.						R	
NATA-EC-5ED.CE.9 Identify functional and patient-centered quality of life outcome measures appropriate for use in athletic training practice.						R	
NATA-EC-5ED.CIP 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,							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
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.							
NATA-EC-5ED.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.		I				R	
NATA-EC-5ED.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.							
NATA-EC-5ED.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.		R					
NATA-EC-5ED.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		I				R	

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
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.							
NATA-EC-5ED.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.		I					
NATA-EC-5ED.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).		R					
NATA-EC-5ED.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.							
NATA-EC-5ED.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.		I					
NATA-EC-5ED.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.							
NATA-EC-5ED.EBP Evidence-Based Practice (EBP) Evidence-based practitioners incorporate the best available evidence, their clinical skills, and the needs of the patient to				R, A			

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
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.							
NATA-EC-5ED.EBP.1 Define evidence-based practice as it relates to athletic training clinical practice.				R, A			
NATA-EC-5ED.EBP.10 Determine the effectiveness and efficacy of an athletic training intervention utilizing evidence-based practice concepts.				R, A			
NATA-EC-5ED.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).				R, A			
NATA-EC-5ED.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).				R, A			
NATA-EC-5ED.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.				R, A			
NATA-EC-5ED.EBP.14 Apply and interpret clinical outcomes to assess patient status, progress, and change using psychometrically sound outcome instruments.				R, A			
NATA-EC-5ED.EBP.2 Explain the role of evidence in the clinical decision making process.				R, A			
NATA-EC-5ED.EBP.3 Describe and differentiate the types of quantitative and qualitative research, research components, and levels of research evidence.				R, A			

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.EBP.4 Describe a systematic approach (eg, five step approach) to create and answer a clinical question through review and application of existing research.				R, A			
NATA-EC-5ED.EBP.5 Develop a relevant clinical question using a pre-defined question format (eg, PICO= Patients, Intervention, Comparison, Outcomes; PIO = Patients, Intervention, Outcomes).				R, A			
NATA-EC-5ED.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.				R, A			
NATA-EC-5ED.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.				R, A			
NATA-EC-5ED.EBP.8 Describe the differences between narrative reviews, systematic reviews, and metaanalyses.				R, A			
NATA-EC-5ED.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.				R, A			
NATA-EC-5ED.HA 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.							
NATA-EC-5ED.HA.1 Describe the role of the athletic trainer and the delivery of athletic training services within the context of the broader healthcare system.							
NATA-EC-5ED.HA.10 Identify and explain the statutes that regulate the privacy and security of medical records.							
NATA-EC-5ED.HA.11 Use contemporary documentation strategies to effectively communicate with patients, physicians, insurers, colleagues, administrators, and parents or family members.							
NATA-EC-5ED.HA.12 Use a comprehensive patient-file management system for appropriate chart documentation, risk management, outcomes, and billing.							
NATA-EC-5ED.HA.13 Define state and federal statutes that regulate employment practices.							
NATA-EC-5ED.HA.14 Describe principles of recruiting, selecting, hiring, and evaluating employees.							
NATA-EC-5ED.HA.15 Identify principles of recruiting, selecting, employing, and contracting with physicians and other medical and healthcare personnel in the deployment of healthcare services.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.HA.17 Identify key regulatory agencies that impact healthcare facilities, and describe their function in the regulation and overall delivery of healthcare.							
NATA-EC-5ED.HA.18 Describe the basic legal principles that apply to an athletic trainer's responsibilities.							
NATA-EC-5ED.HA.19 Identify components of a risk management plan to include security, fire, electrical and equipment safety, emergency preparedness, and hazardous chemicals.							
NATA-EC-5ED.HA.2 Describe the impact of organizational structure on the daily operations of a healthcare facility.							
NATA-EC-5ED.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.							
NATA-EC-5ED.HA.21 Develop comprehensive, venue-specific emergency action plans for the care of acutely injured or ill individuals.							
NATA-EC-5ED.HA.22 Develop specific plans of care for common potential emergent conditions (eg, asthma attack, diabetic emergency).							
NATA-EC-5ED.HA.23 Identify and explain the recommended or required components of a pre-participation examination based on appropriate authorities' rules, guidelines, and/or recommendations.							
NATA-EC-5ED.HA.24 Describe a plan to access appropriate medical assistance on disease control, notify medical authorities, and prevent disease epidemics.							
NATA-EC-5ED.HA.25 Describe common health insurance models, insurance contract negotiation, and the common benefits and exclusions identified within these models.							
NATA-EC-5ED.HA.26 Describe the criteria for selection, common features, specifications, and required documentation needed for secondary, excess accident, and catastrophic health insurance.							
NATA-EC-5ED.HA.27 Describe the concepts and procedures for revenue generation and reimbursement.							
NATA-EC-5ED.HA.28 Understand the role of and use diagnostic and procedural codes when documenting patient care.							
NATA-EC-5ED.HA.29 Explain typical administrative policies and procedures that govern first aid and emergency care.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.HA.3 Describe the role of strategic planning as a means to assess and promote organizational improvement.							
NATA-EC-5ED.HA.30 Describe the role and functions of various healthcare providers and protocols that govern the referral of patients to these professionals.							
NATA-EC-5ED.HA.4 Describe the conceptual components of developing and implementing a basic business plan.							
NATA-EC-5ED.HA.5 Describe basic healthcare facility design for a safe and efficient clinical practice setting.							
NATA-EC-5ED.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.							
NATA-EC-5ED.HA.7 Assess the value of the services provided by an athletic trainer (eg, return on investment).							
NATA-EC-5ED.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.							
NATA-EC-5ED.HA.9 Identify the components that comprise a comprehensive medical record.							
NATA-EC-5ED.PD 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.							
NATA-EC-5ED.PD.1 Summarize the athletic training profession's history and development and how current athletic training practice has been influenced by its past.							
NATA-EC-5ED.PD.10 Develop healthcare educational programming specific to the target audience (eg, clients/patients, healthcare personnel, administrators, parents, general public).							
NATA-EC-5ED.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.							
NATA-EC-5ED.PD.12 Identify mechanisms by which athletic trainers influence state and federal healthcare regulation.							
NATA-EC-5ED.PD.2 Describe the role and function of the National Athletic Trainers' Association and its influence on the profession.							
NATA-EC-5ED.PD.3 Describe the role and function of the Board of Certification, the Commission on accreditation of Athletic Training Education, and state regulatory boards.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PD.6 Explain the process of obtaining and maintaining necessary local, state, and national credentials for the practice of athletic training.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PD.8 Differentiate among the preparation, scopes of practice, and roles and responsibilities of healthcare providers and other professionals with whom athletic trainers interact.							
NATA-EC-5ED.PD.9 Specify when referral of a client/patient to another healthcare provider is warranted and formulate and implement strategies to facilitate that referral.							
NATA-EC-5ED.PHP 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).							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.10 Explain the principles of the body???s thermoregulatory mechanisms as they relate to heat gain and heat loss.							
NATA-EC-5ED.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).							
NATA-EC-5ED.PHP.12 Summarize current practice guidelines related to physical activity during extreme weather conditions (eg, heat, cold, lightning, wind).							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.15 Use a glucometer to monitor blood glucose levels, determine participation status, and make referral decisions.							
NATA-EC-5ED.PHP.16 Use a peak-flow meter to monitor a patient's asthma symptoms, determine participation status, and make referral decisions.							
NATA-EC-5ED.PHP.17 Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:							
NATA-EC-5ED.PHP.17a Cardiac arrhythmia or arrest							
NATA-EC-5ED.PHP.17b Asthma							
NATA-EC-5ED.PHP.17c Traumatic brain injury							
NATA-EC-5ED.PHP.17d Exertional heat stroke							
NATA-EC-5ED.PHP.17e Hyponatremia							
NATA-EC-5ED.PHP.17f Exertional sickling							
NATA-EC-5ED.PHP.17g Anaphylactic shock							
NATA-EC-5ED.PHP.17h Cervical spine injury							
NATA-EC-5ED.PHP.17i Lightning strike							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.19 Instruct clients/patients in the basic principles of ergonomics and their relationship to the prevention of illness and injury.							
NATA-EC-5ED.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).							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.22 Fit standard protective equipment following manufacturers??? guidelines.							
NATA-EC-5ED.PHP.23 Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.25 Describe the role of exercise in maintaining a healthy lifestyle and preventing chronic disease.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.28 Administer and interpret fitness tests to assess a client???s/patient???s physical status and readiness for physical activity.							
NATA-EC-5ED.PHP.29 Explain the basic concepts and practice of fitness and wellness screening.							
NATA-EC-5ED.PHP.3 Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.32 Describe the role of nutrition in enhancing performance, preventing injury or illness, and maintaining a healthy lifestyle.							
NATA-EC-5ED.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.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.35 Describe the proper intake, sources of, and effects of micro- and macronutrients on performance, health, and disease.							
NATA-EC-5ED.PHP.36 Describe current guidelines for proper hydration and explain the consequences of improper fluid/electrolyte replacement.							
NATA-EC-5ED.PHP.37 Identify, analyze, and utilize the essential components of food labels to determine the content, quality, and appropriateness of food products.							
NATA-EC-5ED.PHP.38 Describe nutritional principles that apply to tissue growth and repair.							
NATA-EC-5ED.PHP.39 Describe changes in dietary requirements that occur as a result of changes in an individual's health, age, and activity level.							
NATA-EC-5ED.PHP.4 Explain how the effectiveness of a prevention strategy can be assessed using clinical outcomes, surveillance, or evaluation data.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.41 Identify the foods and fluids that are most appropriate for pre-activity, activity, and recovery meals/snacks.							
NATA-EC-5ED.PHP.42 Explain how changes in the type and intensity of physical activity influence the energy and nutritional demands placed on the client/patient.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.44 Assess body composition by validated techniques.							
NATA-EC-5ED.PHP.45 Describe contemporary weight management methods and strategies needed to support activities of daily life and physical activity.							
NATA-EC-5ED.PHP.46 Identify and describe the signs, symptoms, physiological, and psychological responses of clients/patients with disordered eating or eating disorders.							
NATA-EC-5ED.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.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PHP.5 Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.							
NATA-EC-5ED.PHP.6 Summarize the epidemiology data related to the risk of injury and illness associated with participation in physical activity.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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).							
NATA-EC-5ED.PHP.9 Explain the role of the preparticipation physical exam in identifying conditions that might predispose the athlete to injury or illness.							
NATA-EC-5ED.PS 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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PS.11 Describe the role of various mental healthcare providers (eg, psychiatrists, psychologists, counselors, social workers) that may comprise a mental health referral network.							
NATA-EC-5ED.PS.12 Identify and refer clients/patients in need of mental healthcare.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.PS.14 Describe the psychological and sociocultural factors associated with common eating disorders.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PS.16 Formulate a referral for an individual with a suspected mental health or substance abuse problem.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.PS.2 Explain the theoretical background of psychological and emotional responses to injury and forced inactivity (eg, cognitive appraisal model, stress response model).							
NATA-EC-5ED.PS.3 Describe how psychosocial considerations affect clinical decision-making related to return to activity or participation (eg, motivation, confidence).							
NATA-EC-5ED.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.							
NATA-EC-5ED.PS.5 Summarize contemporary theory regarding educating patients of all ages and cultural backgrounds to effect behavioral change.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.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.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.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.							
NATA-EC-5ED.TI 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.							
NATA-EC-5ED.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.							
NATA-EC-5ED.TI.10 Integrate self-treatment into the intervention when appropriate, including instructing the patient regarding self-treatment plans.							
NATA-EC-5ED.TI.11 Design therapeutic interventions to meet specified treatment goals.							
NATA-EC-5ED.TI.11a Assess the patient to identify indications, contraindications, and precautions applicable to the intended intervention.							
NATA-EC-5ED.TI.11b Position and prepare the patient for various therapeutic interventions.							
NATA-EC-5ED.TI.11c Describe the expected effects and potential adverse reactions to the patient.							
NATA-EC-5ED.TI.11d Instruct the patient how to correctly perform rehabilitative exercises.							
NATA-EC-5ED.TI.11e Apply the intervention, using parameters appropriate to the intended outcome.							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
NATA-EC-5ED.TI.11f Reassess the patient to determine the immediate impact of the intervention.							
NATA-EC-5ED.TI.12 Use the results of on-going clinical examinations to determine when a therapeutic intervention should be progressed, regressed or discontinued.							
NATA-EC-5ED.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.							
NATA-EC-5ED.TI.14 Describe the use of joint mobilization in pain reduction and restoration of joint mobility.							
NATA-EC-5ED.TI.15 Perform joint mobilization techniques as indicated by examination findings.							
NATA-EC-5ED.TI.16 Fabricate and apply taping, wrapping, supportive, and protective devices to facilitate return to function.							
NATA-EC-5ED.TI.17 Analyze gait and select appropriate instruction and correction strategies to facilitate safe progression to functional gait pattern.							
NATA-EC-5ED.TI.18 Explain the relationship between posture, biomechanics, and ergonomics and the need to address these components in a therapeutic intervention.							
NATA-EC-5ED.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.							
NATA-EC-5ED.TI.2 Compare and contrast contemporary theories of pain perception and pain modulation.							
NATA-EC-5ED.TI.20 Inspect therapeutic equipment and the treatment environment for potential safety hazards.							
NATA-EC-5ED.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.		R, A					
NATA-EC-5ED.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.		R, A					
NATA-EC-5ED.TI.23 Use an electronic drug resource to locate and identify indications, contraindications, precautions, and adverse reactions for common prescription and nonprescription medications.		R, A					
NATA-EC-5ED.TI.24 Explain the major concepts of pharmacokinetics and the influence that exercise might have on these processes.		R, A					
NATA-EC-5ED.TI.25 Explain the concepts related to bioavailability, half-life, and bioequivalence (including the relationship between generic and brand name drugs) and their		R, A					

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
relevance to the patient, the choice of medication, and the dosing schedule.							
NATA-EC-5ED.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.		R, A					
NATA-EC-5ED.TI.27 Describe the common routes used to administer medications and their advantages and disadvantages.		R, A					
NATA-EC-5ED.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.		R, A					
NATA-EC-5ED.TI.29 Describe how common pharmacological agents influence pain and healing and their influence on various therapeutic interventions.		R, A					
NATA-EC-5ED.TI.3 Differentiate between palliative and primary pain-control interventions.		R, A					
NATA-EC-5ED.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.		R, A					
NATA-EC-5ED.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.		R, A					
NATA-EC-5ED.TI.4 Analyze the impact of immobilization, inactivity, and mobilization on the body systems (eg, cardiovascular, pulmonary, musculoskeletal) and injury response.							
NATA-EC-5ED.TI.5 Compare and contrast the variations in the physiological response to injury and healing across the lifespan.							
NATA-EC-5ED.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.						R	
NATA-EC-5ED.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.						R	
NATA-EC-5ED.TI.8 Explain the theory and principles relating to expected physiological response(s) during and following therapeutic interventions.							
NATA-EC-5ED.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							

	ATR 432	ATR 443	ATR 444	ATR 450	ATR 443	ATR 455	ATR 456
transmission and attenuation, electricity).							

Changes to Curriculum

Are there any changes made to the curriculum map for this academic year? If so, please describe the program changes made along with the rationale for why and the impact the change should have on student learning?

Bachelor of Science in Athletic Training

This curriculum was changed in its final year to add ATR 444 - General Medical Conditions: Lab. This addition allowed for hands-on and advanced skills to be introduced prior to the students sitting for the BOC Certification Exam.

EXS Sports Medicine / Pre-athletic Training

This curriculum was modified to add the following courses per the CAATE 2020 Standards:

BIO 114/115 - General Biology I with Lab

CHM 115/115 - General Chemistry I with Lab

CHM 124/125 - General Chemistry II with Lab

PHY 202/203 - Physics I with Lab

The following class was identified as a scheduling conflict and was removed as it does not contribute anything specific to the major. Students interested in pursuing the Certified Strength & Conditioning Specialist (CSCS) would be advised to take the course as an elective, if possible:

EHP 460 - Principles of Strength & Conditioning

Master of Athletic Training

The name of the degree was changed from Master of Science in Athletic Training where CAATE reserves that name for post-professional masters and Master of Athletic Training for professional (formerly entry-level) programs.

The curriculum was also modified to address the CAATE 2020 Standards:

ATR 525 - Clinical III: Immersive Intensive

Assessment Findings

Assessment Findings for the Assessment Measure level for ATR Curriculum Map

Analysis of the Assessment Process

Describe your assessment process; clearly articulate how the program is using course work and or assessment day activities for program assessment. Note any changes that occurred to that process since the previous year. Discuss what activities were successful at assessment and which ones were not as helpful and why. Please include who met to discuss the changes (unless you are a program of one person) and when you met. – Include a discussion on the process for collection and analysis of program data.

ATR Coursework Assessments

Athletic training lecture courses are comprised of formative quizzes and summative written exams for each unit. The quizzes and exams are designed to assess foundational knowledge, analysis of exam findings, and clinical decision making. The final exam is cumulative and summative of the course as a whole.

Athletic training lab courses utilize the formative quizzes from the lecture component in preparation for summative lab practicals. Lab practicals are designed to assess the learner's psychomotor ability to perform examination and intervention techniques. The final lab practical is cumulative and summative of the course as a whole.

Athletic training clinical education is comprised of working with real patient populations under the supervision of a certified athletic trainer or physician. Assessment is performed by the clinical preceptor. These assessments will be more individualized to the clinical education experience beginning in the 2019-20 academic year.

Assessment Day

Internal Assessment

Students admitted into the athletic training program complete a lab practical. This practical examination requires the learner to recognize signs and symptoms of common orthopedic and non-orthopedic/general medical conditions, apply the best examination technique based on sensitivity and specificity, and recommend the best immediate care. This exam is currently scored out of 450 points.

External Assessment

Students admitted into the athletic training program participate in mock interviews for athletic training positions. This requires the completion and submission of a cover letter and resume as well as an interview with a certified athletic trainer.

All students declared as an EXS sports medicine / pre-athletic training major will complete a BOC Certification Exam practice test. These tests comprise of 75 questions over the 5 domains of athletic training. The student receives an exam for each domain. These scores are then compared to the BOC standard (62.5%) and MAT standard (70%). These scores are tracked annually to ensure the students' progression through the curriculum. Failure to progress will require a meeting with the Program Director to determine specific areas of concern and, potentially, advise towards another major.

Graduating seniors will also sit for the BOC Certification Exam. A student who passes the exam will receive a notification of passing where students who fail the exam will receive a percentage score per domain. Students are notified prior to or shortly after graduation; the university does not receive a confirmation for a few months. CAATE requires the program to report retention rates, 1st time pass rates, and overall pass rates as well as 3-year aggregate totals.

Improvement Narrative List

Program Activities

Student Performance Review

Describe the department assessment day activities if not already described previously. Please articulate the nature of the assessments are conducted, explain the process for assessment that happens on these two days. Include the schedule of assessment day for your program. What does the data and outcomes tell you? What changes will you make as a result of the data? What areas are successful for the program?

Assessment Days

The students in the Sports Medicine / Pre-Athletic Training concentration complete a Board of Certification practice examination annually on Assessment Days. The practice examination is representative of the BOC Certification Examinations the students can complete in their final semester or after graduation that allows them to use the ATC clinical designation and apply for state licensure. The practice exams, similar to the actual exam, are segmented into the five domains of athletic training:

Domain 1 - Injury and Illness Prevention and Wellness Promotion

Domain 2 - Examination, Assessment, and Diagnosis

Domain 3 - Immediate and Emergency Care

Domain 4 - Therapeutic Interventions

Domain 5 - Healthcare Administration and Professional Responsibility

Percentages of correct answers are provided for each domain. Percentages between 60.0 and 62.5% are considered borderline scores while scores greater than 62.5% have met the Board of Certification's benchmark. Scores are tracked annually as the students complete required coursework to determine their progress. The following program benchmarks have been established:

Freshman: average score >20.0%

Sophomore: average score >30.0%

Junior: average score >40.0%

Senior: average score >60.0%

Graduate: average score >70.0%

If a student is failing to improve in a given content area, that student will receive remedial educational experiences. If multiple students are not progressing in a given content area, the curriculum will be reviewed and adjusted accordingly. Neither of these are good options as each domain comprises content from multiple courses.

Data Collection

Freshmen, sophomores, juniors, and seniors completed the Board of Certification Practice exam. The scores for the seniors were collected but will not be discussed here as they relate to the discontinued undergraduate curriculum.

Instructions to the students prior to taking the BOC practice exam this year did change. Students were instructed to not guess at questions they were unsure and to leave these questions blank. This will improve tracking of information being conveyed in courses. Due to this instructional change, some scores did decrease during this year.

Juniors

Anticipated average score: 40%

	Prevention/ Wellness	Clinical Evaluation	Emergency Care	Intervention	Organization	AVG
Feltrop	44.12	46.67	84.73	67.14	60.00	60.53
Santiago	46.08	40.00	59.01	41.43	60.00	49.30
Steffens	28.43	49.17	57.22	50.00	35.00	43.96
	39.54	45.28	66.99	52.86	51.67	51.27

Feltrop has shown progress each year in the pre-athletic training curriculum and currently meets the BOC benchmark in Domains III and IV. She did demonstrate a decrease in Domain I in 2019 but her overall average still improved.

Santiago and Steffens demonstrated decreases in all 5 domains but this is attributed to the new pre-test instructions.

All 3 students met the program benchmark of 40% average across the 5 domains.

Additionally, all three of these students applied to and were accepted into the Master of Athletic Training program beginning in Fall 2019.

Sophomores

Anticipated average score: 30%

	Prevention/Wellness	Clinical Evaluation	Emergency Care	Intervention	Organization	AVG
Eichholz	33.33	30.83	35.09	48.57	65.00	42.56
Farrell	50.98	38.33	59.27	47.14	65.00	52.14
Fleming	44.12	25.00	42.09	58.57	25.00	38.96
Holt	34.31	29.17	44.47	27.14	30.00	33.02
Meikel	33.33	40.00	51.06	53.57	45.00	44.59
Putnam	51.96	28.33	53.96	48.57	22.50	41.06
	41.34	31.94	47.66	47.26	42.08	42.06

Eichholz and Farrell have met the BOC standard for domain 5. All have met the graduated program standard of 30% average fro all 5 domains.

Freshmen

Anticipated average score: 20%

	Prevention/Wellness	Clinical Evaluation	Emergency Care	Intervention	Organization	AVG
Brandt						n/a
Branscum	54.90	25.83	70.48	41.43	52.50	49.03
Brookins						n/a
Bossing	26.47	32.50	60.37	33.57	55.00	41.58
Cain	46.08	54.17	65.49	27.14	60.00	50.58
Giamanco	34.31	22.50	41.17	33.57	12.50	28.81
Gourley	47.06	33.33	77.29	33.57	60.00	50.25

Hassler	41.18	38.33	51.50	37.14	42.50	42.13
Hawkins	46.08	25.83	67.33	37.86	42.50	43.92
Hazell	47.06	31.67	75.75	42.14	60.00	51.32
Hockett	35.29	35.83	36.34	37.14	60.00	40.92
Humble						n/a
Schuster						n/a
Spencer	27.45	34.17	36.78	32.86	32.50	32.75
	40.59	33.42	58.25	35.64	47.75	43.13

This was the first year for this group of freshmen to take the BOC practice exam. All met the program benchmark of 20% average across the 5 domains. Gaimanco, who had the lowest average, recently transferred into the program from information management systems. Brookins has no data as he did not take the practice exam and subsequently changed majors (criminal justice). Humble and Schuster did not take the practice exam and are believed to have left the university.

Student Performance Review Schedule

Upload the program schedule for students during Performance Reviews.

MSAT_Assessment_Days__2018_19__template.pdf

Senior Showcase

Describe program Senior Showcase activities if not detailed previously in the report? What benefit does the program gain from the activities? What if any assessment of students happens during this event? What changes if any will occur due to what is learned by faculty on Senior Showcase?

The Sports Medicine / Pre-Athletic Training concentration will not have a Senior Showcase component until Spring 2021.

Students will present during Senior Showcase in spring of their fifth year. This project will require the students to present research in all three of its possible formats: written manuscript, oral presentation, and poster presentation. The students will use the same topic for all three formats: a case study on a patient treated during the clinical education component of the curriculum. The manuscript will be due in March of the given year. The oral presentation will be given in March at the Research Symposia LEAD Event held in conjunction with National Athletic Trainers' Month. The poster presentation will be given during the traditional Senior Showcase, another LEAD event.

Case studies offer unique research perspectives utilization for a single patient. The preparation of the case study requires the utilization of extensive coursework from the Exercise Science core, the Sports Medicine / Pre-Athletic Training concentration, and Master of Athletic Training curriculums. The preparation of the case study requires active participation in the clinical courses and utilization of information from the examination courses, the interventions courses, and the research courses. The manuscript and oral presentation must be passed with a minimum 70%. Failure to meet the 70% benchmark will result in the student having to submit corrected material(s).

Assessment Rubrics

Upload rubrics used for Senior Showcase or Student Performance Reviews for student assessment.

Service Learning

Does the Program include projects/ course content that uses the philosophy of service learning?

Yes

No (selected)

Service Learning Component

If so, how is service learning infused in the coursework within your department? Is service or community engagement in the program mission? Describe the Service Learning Activities that your students and department engaged in this past year. How did the activities improve student learning? How did the activities benefit the community?

LEAD Events

Highlight lead events sponsored by program faculty that are connected to program or general education objectives for the past academic year. Include a total number of lead events program faculty sponsored.

Spring 2019 - 4th Annual Athletic Training Senior Research Symposia

Spring 2019 - Athletic Training Senior Showcase

Student Accomplishments

Highlight special examples of student successes in the field (academic: mentor-mentee, conference presentations, competitive internship, journal acceptance; extra-curricular: horse show championship, art exhibit). This is for any accomplishments that a student achieved outside of course work or the normal expectations of student success.

Amanda Bouchey

Athletic Training Faculty Award

Iota Tau Alpha - Honor Society of the National Athletic Trainers' Association

Passed BOC exam to earn ATC credential

Mitchel Brown

Graduate Assistant, William Woods University

Passed BOC exam to earn ATC credential

Anna Houston

Entered National Guard with plans to enter military physician's assistant program

Sat for BOC; second hand information indicates she passed but results not confirmed

Alumni Accomplishments

Please highlight special examples of any successes of recent graduated alumni (acceptance or graduation graduate school, employment or professional milestones. Include recent graduates.

Alexandra Bankovich, ATC began working as an athletic trainer in a physician's office at Missouri Orthopedic Institute.

Michaela Dudenhoeffer, ATC began working as an athletic trainer for NovaCare Rehabilitation in Kansas City, MO

Erin Strickland, MS, ATC completed her Master of Sport Science and Rehabilitation at Logan University in St Louis, MO.

Faculty Accomplishments

Highlight special examples of faculty success in the profession/field/content area. This is for any accomplishment of a faculty activity/research/professional nature.

Dr. Steve Middleton

Presentations

"Instrument Assisted Soft Tissue Mobilization for Pelvic Pain" - 2019 Mid-American Athletic Trainers' Association's Annual Symposia

"IASTM & Kinesiology Taping for the Rehabilitation Professional" - University of St Augustine for Health Sciences

Publications

"Use of Biopsychosocial Patient Education in the Management of Anxiety Driven Shoulder Pain: a case study" - submitted for publication

Service to the Profession

Submission Reviewer - 2019 National Athletic Trainers' Annual Symposia

Article Reviewer - Journal of Athletic Training

Item writer - Board of Certification, Inc.

Professional Development

Introduction to Primary Care 8 hours University of St Augustine

E-2: Extremity Integration 21 hours University of St Augustine

Healthcare Technology 3 credits William Woods University

Healthcare Finance 3 credits William Woods University

ImPACT Concussion 7hours

Assessment Rubric

Annual Assessment Rubric 2018

28.000 pts 66.679

	3.000 Exceeds	2.000 Meets	1.000 Falls Below Expectations	N/A
Mission Statement Clearly Articulated weight: 1.000	✓ The mission statement for the program is insightful and forward thinking. It aligns with the University Mission and learning objectives showing a clear alignment between the University and the program.	✓ The mission statement for the program clearly articulated and aligned with the University mission.	✓ The mission statement is minimal at best.	✓ N/A
Comment:				
Reflection on Retention weight: 1.000	✓ The program provides a detailed description on the retention numbers. The program provides new ideas on how to improve retention of their program students or articulates what they are currently doing to keep students in their program.	✓ The program provides a basic reflection on the retention data provided.	✓ The program does not reflect on retention data in a detailed way.	✓ N/A
Comment:				
Defines External Accreditation Standards weight: 1.000	✓ The program provides a detailed explanation of the accreditation organizations within the field along with all the timeline and supplemental information required for accreditation.	✓ The program provides a basic explanation of the accreditation organizations in the field.	✓ The program fails to provide any accreditation information.	✓ N/A
Comment:				
General Education alignment clearly explained weight: 1.000	✓ The program provides a detailed explanation of the General Education criterion and how the basic skills learned are expanded upon in the program. Details include but are not limited to: specific courses, or activities that stretch the knowledge of the specific areas.	✓ The program provides a basic explanation of the General Education curriculum and how the skills learned are expanded in program courses.	✓ The program provides a minimal explanation of the General Education curriculum and how the skills learned are expanded in program courses.	✓ N/A
Comment:				
Curriculum Map alignment weight: 1.000	✓ The curriculum map is detailed and complete.	✓ The curriculum map is complete	✓ The curriculum map is not complete	✓ N/A
Comment:				
Assessment of Objectives weight: 1.000	✓ Assessment of objectives are spread out across the curriculum with a variety of assessment measures and each program objective is assessed a minimum of twice a year.	✓ Each objective is assessed a minimum of 2 times a year or an assessment rotation is explained so that all objectives are assessed. The assessments are not concentrated in one class.	✓ The assessment map is not complete or much of the assessment happens in only one course. Not all objectives are assessed annually, nor is a plan provided on assessment.	✓ N/A
Comment:				

Data Driven Decision-making is explained weight: 1.000	✓ Curricular and assessment changes are articulated and validated through data based decisions. Faculty discuss the data that lead to curricular decisions being made.	✓ Curricular and assessment decisions are made based on data provided in assessment, but detailed alignment is not provided as justification for the change.	✓ Changes are proposed and brought forth with little explanation on the data included in the decision, if data was included in the decision.	✓ N/A
Comment:	the curricular changes were brought about by the modification from the program structure. There is some discussion on rationale but it mostly details why changes were made based on the structures of the programs involved.			
Documentation provided on assessment findings weight: 1.000	✓ The program uploads all rubric and support information to support the claims in the assessment findings along with detailed instructions on the assessment process and data analysis.	✓ The program uploads all rubric and support information to support the claims in assessment findings.	✓ The program did not upload the data to support assessment claims in the assessment findings.	✓ N/A
Comment:	the Assessment map is not completed in the system. There is no discussion of assessment happening, but this could be due to the implementation of the program not being complete.			
Analysis of Assessment is complete weight: 1.000	✓ The program completed assessment findings for each component identified, and provided a comprehensive summary of each assessment measure identified in the report.	✓ The program completed the assessment findings for each component and provided a summary for each assessment measure.	✓ The program did not provide a completed assessment findings for each component, nor did they complete the summary for each measure.	✓ N/A
Comment:	the program provided an overall approach to the assessment that happens, but none of it was course based. Much of the assessment is from the BOC certification exam.			
Improvement narratives are selected with intentionality weight: 1.000	✓ The program identified Improvement Narratives that appear to move the program forward and see the bigger picture than only the specific program curriculum options	✓ The program used the provided Improvement Narratives and selected options that made sense to the objectives and issues within the assessment.	✓ The program did not use any improvement narratives, or the ones chosen are not aligned with assessment results.	✓ N/A
Comment:				
Student Performance Review weight: 1.000	✓ The program described and provided a detailed account of Student performance Review activities. Data evidence provided and detailed.	✓ The program provided the schedule and a brief description of Student Performance Review with data of the results.	✓ The program did not provide complete explanation on Student Performance Review nor did they provide data results.	✓ N/A
Comment:				
Senior Showcase weight: 1.000	✓ The program had all senior students participate in Senior Showcase and provided a detailed explanation of their expectation and the presentations presented.	✓ The program described the Senior showcase activities and provided some evidence of what was presented.	✓ Little to no content of Senior showcase was provided.	✓ N/A
Comment:				
Co Curricular activities weight: 1.000	The program detailed the activities of LEAD and other co-curricular programming that was provided throughout the year. They provided numerous events for students.	✓ The program provided a listing of LEAD events and activities provided.	The program provided little to no description of the Co-curricular activities provided throughout the year.	N/A
Comment:				
Faculty, alumni, and Student accomplishments weight: 1.000	✓ The program provided detail updates on successes on Students, Alumni and Faculty with added information explaining the kinds of success that were experienced.	✓ The program provided a listing of information on Students, Alumni, and faculty accomplishments.	✓ The program provided little to no data on students, alumni, faculty accomplishments.	✓ N/A
Comment:				