

# ATHLETIC TRAINING (AT)

## AT 114. Introduction to Athletic Training/Sports Medicine. 2 Credits.

This course is designed to familiarize the student with the role of an athletic trainer in sports and health care. AT major only or permission of instructor.

**Corequisites:** Take AT 114L.

**Offered:** Every year, Spring

## AT 114L. Introduction to the Clinical Environment. 0 Credits.

Lab to accompany AT 114. This eight-week session is required for AT majors or those considering transferring into the major. AT major only or permission of instructor. (2 lab hrs.)

**Corequisites:** Take AT 114.

**Offered:** Every year, Spring

## AT 115. Introduction to Kinesiology. 3 Credits.

This introductory course explores the way the musculoskeletal system produces movement patterns in humans. Musculoskeletal anatomy, joint arthrology, muscular mechanics and biomechanical principals are used to perform muscular analyses of both the upper and lower extremities and the trunk. AT major only or permission of instructor.

**Prerequisites:** Take BIO 101.

**Offered:** Every year, Spring

## AT 116. Introduction to Fitness and Conditioning. 2 Credits.

This introductory lab and lecture course teaches the fundamentals of basic fitness and exercise. Students engage in fitness assessments and design of personal conditioning programs for healthy subjects. For AT major only or permission of instructor.

**Prerequisites:** None

**Offered:** Every year, Spring

## AT 201. Medical Aspects of Sports and Activity (SPS 201). 3 Credits.

This course is aimed at individuals who are interested in working in a sports-related field (e.g., coaches, journalists or managers). It provides an overview of a variety of sports medicine-related topics, including common sports injuries, an introduction to sports psychology and current events in the sports medicine. Students who take AT 201 cannot also receive credit for AT 214.

**Prerequisites:** Take one 4-credit lab science course.

**Offered:** Every year, Fall and Spring

## AT 210. Introduction to Evidence-Based Practice. 2 Credits.

Evidence-based practice in health care is the integration of the best available research with clinical expertise in the context of patient characteristics, culture and preferences. This is an introductory course in the processes associated with collecting and utilizing evidence to make clinical decisions.

**Prerequisites:** Take MA 275.

**Offered:** Every year, Spring

## AT 214. Care and Prevention of Athletic Injuries. 3 Credits.

This course is designed to provide an overview of the athletic training profession with an emphasis on the basic fundamentals utilized by the athletic trainer in prevention, recognition, care, treatment and rehabilitation of athletic injuries. AT major only or permission of instructor. Students who take AT 214 cannot also receive credit for AT 201 or HSC 214.

**Prerequisites:** Take BIO 102, BIO 102L, AT 114.

**Offered:** Every year, Fall

## AT 214L. CPR, AED and First Aid. 1 Credit.

Students learn principles of first aid and complete health provider certification in cardiopulmonary resuscitation and automated external defibrillator. For PT majors only. (2 lab hrs.)

**Prerequisites:** None

**Offered:** Every year, Fall and Spring

## AT 215. Therapeutic Modalities. 3 Credits.

Therapeutic Modalities is an introductory course designed to provide students with knowledge of theory and operation of the most commonly used therapeutic devices.

**Prerequisites:** Take AT 214, AT 216.

**Corequisites:** Take AT 215L.

**Offered:** Every year, Spring

## AT 215L. Therapeutic Modalities Lab. 1 Credit.

This lab includes the practical application of therapeutic modalities and must be taken in conjunction with AT 215. (2 lab hrs.)

**Corequisites:** Take AT 215.

**Offered:** Every year, Spring

## AT 216. Emergency Management of Athletic Trauma. 2 Credits.

This laboratory and lecture course teaches the basic skills and decision-making processes necessary to manage emergency medical situations common to athletic activity. Students also perform general first aid. All students are required to pass Red Cross CPR/AED for the Professional Rescuer and Emergency Oxygen Administration (or equivalent).

**Prerequisites:** Take BIO 102, AT 115.

**Corequisites:** Take AT 216L.

**Offered:** Every year, Fall

## AT 216L. Emergency Management of Athletic Trauma Lab. 1 Credit.

This lab includes the practical application of basic skills and decision-making processes necessary to manage emergency medical situations. Must be taken in conjunction with AT 216.

**Corequisites:** Take AT 216.

**Offered:** Every year, Fall

## AT 232. Leadership in Disruptive Times. 3 Credits.

Leadership is considered a "wicked problem" because it's impossible to fully frame, always evolving, and based in relationships. In this course, students investigate leadership from multiple perspectives and emerging theories, work to understand the complexity of the leadership environment, how diverse perspectives matter, and how these group/social/cultural differences often manifest on a level of different communities. This course is web-based but has a twice weekly residency requirement with the professor and the students' team.

**Prerequisites:** Take FYS 101 or FYS 150 and EN 102 or EN 103H.

**Offered:** Every year, Fall and Spring

## AT 250. Introduction to Evaluation and Treatment of Musculoskeletal Injuries. 3 Credits.

This lecture and laboratory course provides the student with a basic systematic approach to the process of physical evaluation and therapeutic exercise program development. It includes processes of history taking and physical exam techniques, indications and contraindications of therapeutic interventions, and treatment adjustments as related to patient injury, prevention, reconditioning and return-to-activity guidelines.

**Prerequisites:** Take AT 114, AT 115, AT 116.

**Corequisites:** Take AT 250L.

**Offered:** Every year, Fall

**AT 250L. Introduction to Evaluation and Treatment of Musculoskeletal Injuries. 1 Credit.**

This lab includes the practical application of recognizing, evaluating and treating common musculoskeletal injuries. Must be taken in conjunction with AT 250.

**Corequisites:** Take AT 250.

**Offered:** Every year, Fall

**AT 251. Evaluation and Treatment of Lower Extremity Musculoskeletal Injuries. 3 Credits.**

This lecture and laboratory course provides the student with a basic evaluation process and techniques involved in assessing musculoskeletal injuries of the lower extremity. The assessment information is then used to design and implement treatment and rehabilitative protocols. Emphasis is placed on integrating kinesiological principals with injury/illness recognition skills and rehabilitative concepts.

**Prerequisites:** Take AT 250.

**Corequisites:** Take AT 251L.

**Offered:** Every year, Spring

**AT 251L. Evaluation and Treatment of Lower Extremity Musculoskeletal Injuries Lab. 1 Credit.**

This lab includes the practical application of recognizing, evaluating and treating common musculoskeletal injuries. Must be taken in conjunction with AT 251.

**Corequisites:** Take AT 251.

**Offered:** Every year, Spring

**AT 290. Clinical Practicum I, Risk Management and Injury Prevention. 2 Credits.**

This practicum introduces students to the general policies and procedures of the Quinnipiac University athletic training room. Students are instructed in taping techniques, proper medical documentation skills, ambulatory aids, the preparticipation examination, and the Quinnipiac University Emergency Action Plan. Hands-on practical experience is emphasized in class sessions.

**Prerequisites:** Take AT 214, AT 216.

**Corequisites:** Take AT 290C.

**Offered:** Every year, Spring

**AT 290C. Clinical Practicum I. 1 Credit.**

During the semester, students gain minimum 100 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.)

**Prerequisites:** Take AT 214, AT 216.

**Corequisites:** Take AT 290.

**Offered:** Every year, Spring

**AT 330. Nutrition for Sport and Fitness. 3 Credits.**

In this foundational course, students learn nutritional concepts related to wellness, injury prevention and maximizing human performance. Students also explore concepts surrounding eating disorders, nutrition for the injured athlete, and dietary supplements.

**Prerequisites:** Take AT 290 or HSC 262.

**Offered:** Every year, Spring

**AT 350. Evaluation and Treatment of Upper Extremity Musculoskeletal Injuries. 3 Credits.**

Students learn the evaluation process and techniques involved in assessing musculoskeletal injuries of the upper extremity. The assessment information is then used to design and implement treatment and rehabilitative protocols. Emphasis is placed on integrating kinesiological principals with injury/illness recognition skills and rehabilitative concepts.

**Corequisites:** Take AT 350L.

**Offered:** Every year, Fall

**AT 350L. Evaluation and Treatment of Musculoskeletal Injuries Lab. 1 Credit.**

This lab includes the practical application of musculoskeletal injury evaluation and rehabilitation. Must be taken in conjunction with AT 350.

**Corequisites:** Take AT 350.

**Offered:** Every year, Fall

**AT 351. General Medical Conditions and Treatment. 3 Credits.**

This course enables the athletic training student to recognize, evaluate and differentiate common systemic diseases, understand appropriate pharmacological interventions, understand the principles of pharmacology and common issues that arise when specific pharmacological agents are employed. Students who take AT 351 may not also receive credit for HSC 351.

**Prerequisites:** Take AT 251, AT 216.

**Corequisites:** Take AT 351L.

**Offered:** Every year, Fall

**AT 351L. General Medical Conditions and Treatments Lab. 1 Credit.**

This lab includes the practical application of recognizing, evaluating, differentiating and treating common medical conditions. Must be taken in conjunction with AT 351.

**Corequisites:** Take AT 351.

**Offered:** Every year, Fall

**AT 352. Evaluation and Treatment of Spinal Injuries. 3 Credits.**

Students learn the evaluation process and techniques involved in assessing common spinal pathologies in the orthopedic and sport setting. The assessment information is then used to design and implement treatment and rehabilitative protocols. Emphasis is on the evaluation process, critical thinking, choosing appropriate treatment techniques, as well as indications and contraindications of specific spinal disorders and exercise progression as related to spinal dysfunction/disorders. Manual therapy as a treatment technique and current trends for treating spinal disorders is also covered.

**Prerequisites:** Take AT 350, AT 351.

**Corequisites:** Take AT 352L.

**Offered:** Every year, Spring

**AT 352L. Evaluation and Treatment of the Spinal Injuries Lab. 1 Credit.**

This lab includes the practical application of the evaluation process of all musculoskeletal injuries with emphasis on the spine and demonstration of evidence based treatment techniques and must be taken in conjunction with AT 352.

**Corequisites:** Take AT 352.

**Offered:** Every year, Spring

**AT 390. Clinical Practicum II, Athletic Protective Equipment. 2 Credits.**

Students are introduced to proper fitting of athletic equipment, as well as sporting rules relevant to safety and the role of the medical professional. The course includes instruction in fabricating and applying protective equipment, such as pads, splints and supports, and advanced taping and wrapping techniques used in athletic training; hands-on practical experience is emphasized in class sessions.

**Prerequisites:** Take AT 290.

**Offered:** Every year, Fall

**AT 390C. Clinical Practicum II, Clinical. 1 Credit.**

During the semester, students gain a minimum 200 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.)

**Corequisites:** Take AT 390.

**Offered:** Every year, Fall

**AT 391C. Clinical Practicum III. 1 Credit.**

During the semester, students gain a minimum of 200 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.)

**Prerequisites:** Take AT 350, AT 351, AT 390C.

**Offered:** Every year, Spring

**AT 440. Biomechanics. 3 Credits.**

This course focuses on the advanced study of human movement, concentrating on the principles of mechanics they relate to the human body. Areas of athletic injury, pathology, sport performance, occupational risks, injury prevention, and rehabilitation are addressed. Projects are designed not only to achieve scientific insights into biomechanical problems but also to train students in state-of-the-art interdisciplinary research procedures. Kinematic and kinetic analyses are conducted.

**Prerequisites:** Take BIO 211, BIO 212 or permission of instructor.

**Offered:** Every year, Fall and Spring

**AT 450. Administration and Management in Athletic Training. 3 Credits.**

Organizational and administrative procedures and considerations, as well as the legal aspects of athletic training and sports medicine are included in this course.

**Prerequisites:** Take AT 391C.

**Offered:** Every year, Fall

**AT 460. Advanced Nutrition. 3 Credits.**

This advanced-level food and nutrition course examines the composition and physiological role of nutrients and their relationships to health and the body. Macronutrient metabolism as well as a detailed examination of the role of vitamin and mineral metabolism are explored. Current nutrition issues of supplement use, weight management, sports nutrition, nutritional ecology and the application of nutrition directly to food and its preparation also are addressed. Students receive hands-on instruction in cooking throughout the semester.

**Prerequisites:** Take AT 330 or HSC 262.

**Offered:** Every year, Fall

**AT 481. Strength Training and Conditioning for the Athletic Trainer. 2 Credits.**

The purpose of the course is to expand the students' knowledge of rehabilitation beyond general concepts. Students learn theory pertaining to a variety of conditioning methods including: periodization, plyometrics and functional training. Lifting techniques and injury prevention related to conditioning are discussed and applied to both the individual athlete and team training concepts. The course is taught as a combination of classroom and laboratory experiences to ensure that students are capable of translating theory into practice.

**Prerequisites:** Take AT 352 or permission of instructor.

**Offered:** Every year, Spring

**AT 482. Advanced Rehabilitation Options in Sports Medicine. 2 Credits.**

This course examines in-depth rehabilitative techniques and advanced manual therapy skills for the sports medicine setting. Practical application of current concepts and research-driven rehabilitative protocols are emphasized. The course also addresses trends in sports medicine surgical procedures, research behind new rehabilitative techniques, and effective mechanisms for evaluating clinical relevance of new products.

**Prerequisites:** Take AT 352.

**Offered:** Every year, Fall

**AT 490C. Clinical Practicum IV. 1 Credit.**

During the semester, students gain a minimum of 200 hours of clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.)

**Prerequisites:** Take AT 351 AT 391C.

**Offered:** Every year, Fall

**AT 491. Clinical Practicum V, Professional and Career Preparation. 2 Credits.**

This course provides students with a means to integrate and augment all concepts, skills and knowledge covered in the athletic training curriculum. Much of the course is discussion based and requires the students to be fully participative.

**Prerequisites:** Take AT 490C.

**Corequisites:** Take AT 491C.

**Offered:** Every year, Spring

**AT 491C. Clinical Practicum V, Clinical. 1 Credit.**

During the semester, students gain a minimum of 200 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.)

**Corequisites:** Take AT 491.

**Offered:** Every year, Fall and Spring