Athletic Training Courses (Orthopedics and Rehabilitation) (AT)

AT Courses

This is a list of courses with the subject code AT. For more information, see Orthopedics and Rehabilitation (Carver College of Medicine) in the catalog.

AT:1010 Exploring Athletic Training 1 s.h.
Exploration of professional preparation for athletic trainers; application, career opportunities, professional organizations, awareness of basic athletic training principles; topics include emergency care, preventative strategies, injury evaluation, and rehabilitation techniques; for students interested in applying to the MS in athletic training program. Requirements: undergraduate major in health and human physiology or enrollment in pre-athletic training program.

AT:1200 CPR and First Aid for Health Care Professions 2 s.h.
Advanced CPR and first aid with automated external defibrillator (AED); opportunity for certification at Basic Life Support (BLS) level through the American Heart Association; satisfies first aid and CPR requirement for athletic training program application; for pre-health care professions majors.

AT:3060 Advanced Anatomy for Athletic Training 4 s.h.
Extremities and relevant body cavity anatomy; anatomical terminology, anatomical relationships of human body, 3D view of anatomy, clinical relevance of anatomy; basic science lectures, radiologic imaging discussions, introduction to clinically relevant anatomy, gross anatomy dissection laboratories, small group learning and teaching, and computer-assisted resources.

AT:4000 Foundations of Athletic Training Practice 3 s.h.
Introduction to athletic training; basic components of a prevention program; injury/illness assessment process including general injury classifications, medical terminology, and patient documentation skills); anatomical basis and technical aspects of applying clinical proficiencies relating to orthopedic applications in the care and prevention of injuries relating to physically active individuals including taping, wrapping, and pad fabrication; basic evaluation skills including goniometric measurements, manual muscle testing, and anatomical palpations.

AT:4075 Medical Emergency Techniques 2 s.h.
Educational competencies and clinical proficiencies; focus on emergency medical practice in athletic training using current evidence-based interventions for medical, orthopedic, and environmental emergencies; knowledge of Emergency Medical Service (EMS) system and role athletic trainers play in the acute-care process; emergency pharmacological interventions and other advanced care skills.

AT:4125 Clinical Experience I 3 s.h.
Integration of clinical competencies through a supervised field experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; first in a four-part series.

AT:4200 Orthopedic Pathology and Clinical Examination I 4 s.h.
Pathomechanics, clinical examination, diagnosis, and appropriate basic treatment plans for orthopedic injuries to the lower extremity and spine; application of theories and skill practice through real-patient interactions and documentation; surgical observation and physician interactions; first in a two-part series.

AT:4250 Orthopedic Pathology and Clinical Examination II 4 s.h.
Pathomechanics, clinical examination, diagnosis, and appropriate basic treatment plans for orthopedic injuries to the upper extremity, head, and C-spine; application of theories and skill practice through real-patient interactions and documentation; surgical observation and physician interactions; second in a two-part series. Prerequisites: AT:4200.

AT:4300 Therapeutic Interventions 3 s.h.
Introduction to theory, application, and treatment of orthopedic conditions using common therapeutic modalities; application of evidence-based research in planning, implementation, documentation, and evaluation of the efficacy of each therapeutic modality in treatment of injuries and illnesses of patients involved in physical activity; emphasis on indications, contraindications, and precautions; integration of patient-based outcome measures to aid in appropriate clinical decision-making.

AT:4375 Nutrition for Athletic Training 2 s.h.
Interaction between nutrition, exercise, and athletic performance; biomechanical and physiological aspects of nutrition and exercise; nutrition for training and competition; impact of nutrition on healing processes, nutritional supplements, and ergogenic aids; nutritional aspects of body composition and weight control; demonstration of ability to plan and implement proper sport nutrition.

AT:4400 Rehabilitation Techniques 3 s.h.
Rehabilitation for athletic trainers based on theory and principles of therapeutic exercise using current evidence-based concepts; focus on pathology and mechanics of exercise therapy in treatment of musculoskeletal injuries; use of mechanical exercise equipment, stressing safety and use of proper body mechanics during exercise, as well as indications and contraindications for different exercises.

AT:4450 Applied Rehabilitation Concepts 3 s.h.
Functional, scientific approach to designing strength and conditioning programs for various populations; testing protocols used for measuring fitness, body composition, flexibility, strength, power, speed, and endurance; evaluation of posture and workplace ergonomics; manual therapy theory and techniques for orthopedic injuries, indications and contradictions, skill development in soft tissue assessment, application of manual and tool-assisted techniques; review of resistance training and program prescription based on literature. Prerequisites: AT:4400.

AT:4525 Clinical Experience II 4 s.h.
Integration of clinical competencies through a supervised field experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; second of a four-part series. Prerequisites: AT:4125.

AT:5000 Pathology and Assessment of Non-Orthopedic Conditions 3 s.h.
Introduction to recognition, assessment, and appropriate intervention or referral strategies for non-orthopedic conditions and disabilities; pathophysiology at cellular, organ, and total body levels applied in each organ system; systems may include cardiovascular, pulmonary, renal, dermatologic, reproductive, endocrine, neurologic, and gastrointestinal; additional topics include gender and pediatric pathology, ENT/ophthalmology, abdominal evaluation, and common contagious illnesses.

AT:5075 Diagnostic Imaging and Lab Studies 1 s.h.
Common diagnostic tests and radiological techniques used commonly by medical community in assessment and diagnosis of common orthopedic and non-orthopedic conditions; students gain knowledge and skills to identify anatomy, pathology, and proper terminology used by health care professionals when discussing diagnostic tests/results; coverage of multiple biological systems and organs of the human body to understand indications, contraindications, and clinical implications for each technique.

AT:5200 Pathophysiology and Pharmacology in Sports Medicine 2 s.h.
Pharmacologic applications for injury/illness sustained by various physically active populations; therapeutic drug classifications, indications, contraindications, interactions of medications, drug testing in sport, and relevant governing regulations; emphasis on drugs commonly used for orthopedic injuries, common conditions and illnesses, mental health and their effects on sport performance, and tissue healing.

AT:6100 Research in Athletic Training 2 s.h.
Identification of an athletic training problem/issue and examination through theories and research; analysis of literature and derivation of evidence-based concepts for clinical decision-making and data-informed practice; use of appropriate academic writing style; differentiation between quantitative and qualitative research; critically responding to research dilemma in a way that aligns professional ethics and values; first in a two-part series.

AT:6125 Clinical Experience III 6 s.h.
Complete professional immersive clinical experience; integration of basic and complex clinical competencies through a supervised clinical experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; third in a four-part series. Prerequisites: AT:4525.

AT:6200 Administration and Leadership 2 s.h.
Overview of organization and administration of athletic training services; topics include organizational structures, human resources, information management, budget and finance, risk management, legal and ethical considerations in health care, purchasing and maintenance of equipment and facilities, and development of policies and procedures for daily operation of athletic training services.

AT:6250 Applied Research in Athletic Training 1 s.h.
Application of research models to athletic training topics; use of appropriate academic writing style; application of basic statistical measures to address clinical problems; continuation and completion of research projects from AT:6100; culminates with dissemination of research findings; second in a two-part series. Prerequisites: AT:6100.

AT:6300 Psychosocial Recognition and Referral 2 s.h.
Psychological factors relative to injury, rehabilitation, and performance; strategies for identifying problems, intervening, and making referrals especially related to psychological disorders, decreased performance, and health/substance abuse; exploration of various theories and models of cultural competence through the lens of sports medicine; students examine and analyze roles of cultural differences including cultural attitudes, beliefs, and expectations as they pertain to effective health care in diverse settings.

AT:6400 Seminar in Athletic Training 2 s.h.
Review of knowledge, skills, and abilities for successful pursuit of athletic training Board of Certification (BOC) credential and processes to obtain employment; résumé development and interviewing skills; emphasis on regulation of practice; professional and ethical responsibilities contributing to practice of athletic training; creation of a professional development plan.

AT:6450 Advanced Topics in Athletic Training 1 s.h.
Investigation and discussion of current events and advanced topics in athletic training and related health professions; evaluation of current professional and legislative issues in athletic training; discussions vary depending on current relevant topics.

AT:6525 Clinical Experience IV 5 s.h.
Integration of clinical competencies through a supervised clinical experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; last in a four-part series. Prerequisites: AT:6125.