

# Athletic Training

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## College of Health Sciences

### Master of Science

The master's degree in athletic training is designed to accommodate both NATA certified athletic trainers and NATA "certification eligible" athletic trainers. Course work and clinical experiences are designed to develop skills necessary to conduct research and increase proficiency in injury prevention, treatment, and rehabilitation. Graduates are prepared to become critical consumers of research and accepted clinical practices, advanced health care providers, and leaders in the clinical educational, and research endeavors of the profession.

#### Admission Requirements

Students interested in applying to the program can find additional information at the following site: <https://www.uky.edu/chs/at>. Applicants must meet the minimum requirements of The Graduate School, as well as the following requirements of the athletic training program: satisfactory scores on the Graduate Record Examination (GRE), a minimum undergraduate grade point average of 2.70 on a 4.00 grading scale, a baccalaureate degree in athletic training from a school accredited by a nationally recognized organization, two references, and an interview. Final admission recommendations are made on a competitive basis. Students must be eligible for current license to practice in Kentucky. Admission to the post-professional athletic training program is competitive and is based on availability of space and adequate faculty support. For additional information, contact:

Dr. Phillip Gibble, Director, Division of Athletic Training  
[phillip.gibble@uky.edu](mailto:phillip.gibble@uky.edu)

### Course Descriptions

#### AT 500 INTEGRATIVE CARE FOR HEALTH SCIENCES. (1-3)

Integrative care involves using the best possible treatments from both complementary/alternative and allopathic medicine, based on the patient's individual needs and condition. The selection of health care providers should be based on good science and this course will introduce students to complementary and alternative health care providers and the practices and beliefs of these practices as well as the scientific evidence in support of these practices. The course integrates successes from both worlds and describe the safest, least invasive, most cost-effective approach while incorporating a holistic understanding of the individual. May be repeated to a maximum of 3 credits (1 credit didactic and up to two credits experiential/research). (Same as HS 500, CLS 500, CNU 500, CD 500, PAS 500.)

#### AT 510 LIFE-THREATENING AND EMERGENCY CONDITIONS DURING PHYSICAL ACTIVITY. (3)

This is a course designed for students pursuing licensure as an Athletic Trainer or a similar professional license in a health care profession that requires the ability to understand, recognize and manage life-threatening and emergency conditions. This is part of a sequence of courses that focus on sports injury assessment and recognition. The overall objectives are for the students to provide foundational and conceptual information for the body systems most commonly involved in emergency conditions during physical activity. Students will learn to recognize life-threatening emergency conditions, identify the body systems in crisis, and the associated threats to those body systems. The student will be required to demonstrate competencies in written and practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

#### AT 520 MANAGEMENT AND ADMINISTRATION IN ATHLETIC TRAINING. (3)

This is a course designed to students pursuing a certification in Athletic Training or similar professional

license in health care professions that focuses on the concepts related to the administration of athletic training programs including legal aspects and regulation of clinical practice, department and personnel management, budgeting, medical records management, risk management planning, facility design, development of referral programs and basic program outcome assessment methods. Prereq: Formal acceptance into the Master of Science

**AT 592 FOUNDATIONS AND PATHOPHYSIOLOGY OF THE MUSCULOSKELETAL SYSTEM FOR ATHLETIC TRAINERS: ARTICULAR / BONE / CARTILAGE. (3)**

This is a course designed for students pursuing a certification in Athletic Training or similar professional license in health care professions that require the assessment and management of injuries to the musculoskeletal system. This is part of a series of courses whose content is organized according to anatomical and physiological human body systems. The objective of this class is to understand normal and pathological conditions of the musculoskeletal system specifically focusing on bone, ligament and cartilage structures and systems common to sports injuries. The student will be required to demonstrate competencies via written examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

**AT 593 FOUNDATIONS AND PATHOPHYSIOLOGY OF THE MUSCULOSKELETAL SYSTEM FOR ATHLETIC TRAINERS: INTEGUMENTARY AND IMMUNE SYSTEMS. (2)**

This is a course designed for students pursuing a certification in Athletic Training or similar professional license in health care professions that requires the ability to perform musculoskeletal assessment and management of the entire human body. This is part of a sequence of anatomical and physiological of human body systems courses that focus on normal and disrupted structures involved in sports injuries. The overall objective is for the students to provide foundation information of integumentary and inflammatory body systems. The student will be required to demonstrate competencies in written examinations. Prereq: Formal acceptance into the Master of Science in Athletic Training program at The University of Kentucky.

**AT 610 ASSESSMENT AND MANAGEMENT OF LIFE-THREATENING AND EMERGENCY CONDITIONS DURING PHYSICAL ACTIVITY. (4)**

This is a course designed for students pursuing a certification in Athletic Training or similar health care professions that require patient assessment and the management of life threatening, emergency conditions. A combination of lectures and laboratory experiences will be provided in order for the student to learn and demonstrate appropriate assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. The overall objective is for the students to be able to survey, deliver and manage emergency conditions that are likely to occur during athletic competition or physical activity. The student will be required to demonstrate competencies in assessment and management with both written and practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky. AT 510 Foundational Systems for Athletic Trainers: Life-Threatening and Emergency Conditions.

**AT 620 GENERAL MEDICAL CONDITIONS IN THE PHYSICALLY ACTIVE. (3)**

This is a course designed for students pursuing a certification in Athletic Training or similar professional license in health care professions that requires the study of the pathology, etiology and presentation of common general medical conditions in active populations. Systems will include cardiovascular, respiratory, gastrointestinal, genitourinary, reproductive, and neurologic conditions most common to the physically active. In addition, concepts of pharmacology including pharmacokinetics, basic drug classifications and legal aspects of use will be covered. Specific focus will be placed on common therapeutic drugs used in sports medicine. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

#### AT 640 PRACTICUM IN ATHLETIC TRAINING. (2-6)

This is a course designed for students pursuing a certification in Athletic Training. This course may be repeated up to 6 times as part of a sequence of practicum courses that combines supervised field experience with review of clinical skills from the classroom. The overall objective of this course sequence is to integrate clinical skills into clinical experiences, while emphasizing clinical decision making. Students will complete a range of preceptor supervised clinical hours (100-300) and credit hours (2-6 credit hours) that will vary per semester. Additionally, students will be required to demonstrate proficiency in competencies specific to the semester content. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

#### AT 641 CLINICAL INTEGRATION I: LOWER EXTREMITY ASSESSMENT AND MANAGEMENT. (1)

This is a course designed for students pursuing a certification in Athletic Training. This is part of a sequence of courses that provides a review of clinical skills in the classroom. The overall objective of this course sequence is to integrate clinical skills into clinical experiences, while emphasizing clinical decision making. The student will be required to demonstrate proficiency in competencies specific to the semester content, as well as evaluated on practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

#### AT 642 CLINICAL INTEGRATION II: UPPER EXTREMITY ASSESSMENT AND MANAGEMENT. (1)

This is a course designed for students pursuing a certification in Athletic Training. This is part of a sequence of courses that provides a review of clinical skills in the classroom. The overall objective of this course sequence is to integrate clinical skills into clinical experiences, while emphasizing clinical decision making. The student will be required to demonstrate proficiency in competencies specific to the semester content, as well as evaluated on practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

#### AT 643 CLINICAL INTEGRATION III: ASSESSMENT AND MANAGEMENT OF LIFE-THREATENING AND EMERGENCY CONDITIONS DURING PHYSICAL ACTIVITY. (1)

This is a course designed for students pursuing a certification in Athletic Training. This is part of a sequence of courses that provides a review of clinical skills in the classroom. The overall objective of this course sequence is to integrate clinical skills into clinical experiences, while emphasizing clinical decision making. The student will be required to demonstrate proficiency in competencies specific to the semester content, as well as evaluated on practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky.

#### AT 644 CLINICAL INTEGRATION IV: THERAPEUTIC MODALITIES AND ADVANCED THERAPEUTIC REHABILITATION. (1)

This is a course designed for students pursuing a certification in Athletic Training. This is part of a sequence of courses that provides a review of clinical skills in the classroom. The overall objective of this course sequence is to integrate clinical skills into clinical experiences, while emphasizing clinical decision making. The student will be required to demonstrate proficiency in competencies specific to the semester content, as well as evaluated on practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky. AT 690. AT 691. AT 695.

#### AT 660 DIRECTED STUDY IN ATHLETIC TRAINING. (1-3)

A specific topic in Athletic Training related to the student's interests is selected for intensive study. Work to be supervised by a graduate faculty member proficient in the area under investigation. May be repeated to a maximum of six credits. Prereq: Graduate standing and consent of instructor.

#### AT 670 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING I. (2)

An introduction to the research process in athletic training. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented. May be repeated to a maximum of 8 credits. Prereq: Graduate standing and consent of the instructor.

#### AT 671 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING II. (2)

The second course of a four part series that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Course work will address the methodological procedures of designing and pursuing research in athletic training. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Prereq: Graduate standing and consent of instructor.

#### AT 672 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING III. (2)

The third course of a four part series that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Course work will address the design of research and synthesis of data in athletic training. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Prereq: Graduate standing and consent of instructor.

#### AT 673 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING IV. (2)

The final course of a four part series that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Course work will focus on developing the skills needed to critically synthesize material with accepted practice, and prepare professional presentations using acquired data and an appropriate statistical analysis. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Prereq: Graduate standing, and consent of instructor.

#### AT 680 SPECIAL TOPICS IN ATHLETIC TRAINING: (Subtitle required). (1-3)

Study of emerging topics of current high interest in athletic training. May be repeated to a maximum of 9 credits. Prereq: Graduate standing and consent of instructor.

#### AT 682 CLINICAL SEMINAR IN ATHLETIC TRAINING. (1)

This is an advanced athletic training course encompassing a wide range of topics related to all domains of the athletic training profession. The primary focus of this course will be on the presentation of case studies for group discussion and contribution. This course will utilize a combination of discussion, review, and student presentation.

#### AT 685 PRINCIPLES AND APPLICATION OF KINESIOLOGICAL EMG. (3)

To introduce the student to the principles and application of kinesiological electromyography (EMG). Kinesiological EMG research incorporates the study of human movement with direct assessment of the muscles involved with human motion. The primary aim for this course is to provide the student with background and practical knowledge of kinesiological EMG in order to be able to perform and critically analyze kinesiological EMG studies. Students will enhance their understanding of neuromuscular properties of skeletal musculature. Students will be exposed to the common procedures used to collect, analyze, and interpret both surface and indwelling kinesiological EMG research. Prereq: KHP 615 or comparable graduate level biomechanics course, the course can be taken concurrently. Approval of instructor.

#### AT 690 ORTHOPAEDIC EVALUATION AND REHABILITATION OF THE UPPER EXTREMITY. (4)

Current evaluation and rehabilitation of upper extremity and upper spine injuries that commonly occur

in athletic, recreational or occupational activities. A combination of lecture, laboratory techniques will be used to review current practice and interventions. Prereq: Graduate standing and consent of instructor.

#### AT 691 THERAPEUTIC MODALITIES FOR ATHLETIC TRAINERS. (3)

This is a course designed to students pursuing a certification in Athletic Training or similar professional license in health care professions that requires the ability to treat and manage symptoms of musculoskeletal conditions using therapeutic modalities. A combination of lectures and laboratory experiences will be provided in this class in order for the student to gain theoretical knowledge and practical application of the use of these physical agents. The overall objective is for the students to develop the skills necessary to select appropriate modalities that can be used when providing care for musculoskeletal injuries sustained by physically active individuals. The student will be required to demonstrate competencies in therapeutic modality applications with both written and practical examinations. Prereq: Formal acceptance into the Master of Science degree program in Athletic Training at The University of Kentucky. AT 591 Foundational Systems, Disorders and Disruptions in Athletic Injury: Muscle/Tendon/Nerve. AT 592 Foundational Systems, Disorders and Disruptions in Athletic Injury: Articular/Bone/Cartilage. AT 590 Anatomical Musculoskeletal Dissection.

#### AT 692 ORTHOPAEDIC EVALUATION AND REHABILITATION OF THE SPINE. (4)

This is an advanced athletic training course encompassing a regional study of orthopedic evaluation and management of the cervical, thoracic, and lumbar spine. A combination of lecture, applied evaluation and rehabilitation techniques, critical reviews of the literature, discussion, and student presentations will be employed. Prereq: Graduate standing and consent of instructor.

#### AT 695 ORTHOPAEDIC EVALUATION AND REHABILITATION OF THE LOWER EXTREMITY. (4)

Current evaluation and rehabilitation of lower extremity and lumbar spine injuries that commonly occur in athletic, recreational or occupational activities. A combination of lecture, laboratory and student presentation and written reviews of current practice and interventions will be employed. Prereq: Graduate standing and consent of instructor.

#### AT 700 MUSCLE MECHANICS. (3)

This is an advanced athletic training course encompassing a wide range of topics related to all aspects of skeletal muscle form and function. The primary focus of this course will be on the mechanical properties of skeletal muscle, and translational aspects of basic science research and clinical care.

#### AT 720 SPORTS MEDICINE. (3)

A study of the basic areas covered in sports medicine with readings and discussions of current international trends in the research and practice in this field. Prereq: Twelve semester hours; credit in the field of biological sciences; consent of instructor. (Same as KHP 720.)

#### AT 740 MUSCULOSKELETAL ANATOMICAL DISSECTION. (3)

This course is a 3-credit cadaver anatomy laboratory course, which will include examination and dissection of the human cadaver. Lectures and laboratory experience will emphasize the musculoskeletal, articular, nervous, and vascular systems particularly as they relate to athletic injury mechanism and evaluation.

#### AT 768 RES CR MASTERS DEGREE. (1-3)

Residency credit for master's thesis

