**ATHLETIC TRAINING (AT)**

**AT 5255 Intro to Burdenko Conditioning (1)**
This course will identify the principles for, and the relationship between, water and land exercises. Participants will learn how to use water as a modality to develop the qualities of flexibility, balance, endurance, strength, speed, and coordination.

**AT 5330 Research and Statistics in Athletic Training (3)**
Introduces the research process in athletic training with an emphasis on evidence-based medicine. Students will learn to evaluate the quality of available research evidence and interpret statistical data and relevance. Scientific writing experience will be gained in the form of research proposals, literature reviews, case studies and critical appraisals. Fall of odd years.
Prerequisite(s): admission to the EL Athletic Training Degree Program, AT 5010, Statistics is recommended but not required.

**AT 5400 Preventative Theories and Psychomotor Skills (4)**
This course will examine the preventative theories and psychomotor skills that the Professional Athletic Trainer must possess to effectively prevent and treat the injuries of athletes and others involved in physical activity.
Prerequisite(s): admission to the Professional Athletic Training Degree Program.

**AT 5410 Lower Extremity Assessment (4)**
A systematic approach to orthopedic assessment will be examined. Each body section will be studied individually stressing the anatomy, myology, neurology, physiology, etiology, pathology and assessment techniques. This course will cover the lower extremity, trunk, abdomen and lumbar spine. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

**AT 5420 Upper Extremity Assessment (4)**
A systematic approach to orthopedic assessment will be examined. Each body section will be studied individually stressing the anatomy, myology, neurology, physiology, etiology, pathology and assessment techniques. This course will cover the upper extremity, cervical spine, head and face. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

**AT 5430 Spine, Posture and Function (4)**
Examines a systematic approach to assessment of the spine and functional movement patterns with an emphasis on the clinical reasoning skills. The osteology, arthrology, myology, neurology, etiology, pathology and orthopedic assessment techniques for the spine, segmental and comprehensive posture, and functional movement patterns are covered. Springs.
Prerequisite(s): AT 5410 and AT 5420.

**AT 5440 Athletic Training Administration (4)**
This course will examine the knowledge, skills, and values that the professional athletic trainer must possess to develop, administer, and manage a healthcare facility and associated venues that provide healthcare to athletes and others involved in physical activity. Additionally, this course will provide the knowledge, skills, and values that a professional athletic trainer must possess to understand professional responsibilities, avenues of professional development, and national and state regulatory agencies and standards in order to promote athletic training as a professional discipline and to educate athletes, students of athletic training, the general public, the physically active, and associated individuals.

**AT 5450 Pathology and Pharmacology in Sports Medicine (4)**
This course will examine the knowledge, skills, and values that the professional athletic trainer must possess to recognize, treat and refer, when appropriate, the general medical conditions and disabilities of athletes and others involved in physical activity.

**AT 5460 Evidence Based Research in Athletic Training (4)**
Introduces the research process in athletic training with an emphasis on evidence-based medicine. Students will learn to evaluate the quality of available research evidence and interpret statistical data and relevance. Scientific writing experience will be gained in the form of research proposals, literature reviews, case studies and critical appraisals. Fall of odd years.
Prerequisite(s): admission to the Professional Program, AT 5410, Statistics is recommended but not required.

**AT 5470 Therapeutic Intervention I (4)**
This course provides students with the introductory theory, knowledge and skills necessary to identify the stage of physiological healing, create treatment goals, and select appropriate therapeutic interventions designed to enhance function by identifying, remediating, and preventing impairments and activity restrictions to maximize the patient’s participation and health-related quality of life. Springs.
Prerequisite(s): AT 5420 and AT 5810.

**AT 5480 Therapeutic Intervention II (4)**
This course provides students with advanced theory, knowledge and skills necessary to create treatment goals and select appropriate therapeutic interventions designed to enhance function by identifying, remediating, and preventing impairments and activity restrictions to maximize the patient’s participation and health-related quality of life. Springs.
Prerequisite(s): AT 5470.

**AT 5490 Athletic Training Capstone (4)**
Provides students with a capstone opportunity to demonstrate competence in professional practice and the importance of life-long learning, evidence-based practice and the use of appropriate patient-based outcomes measures to evaluate clinical outcomes. Students will develop a clinical question, conduct a review of available research, critically appraise that research and analyze and disseminate valid results. Springs.
Prerequisite(s): AT 5460.

**AT 5610 Statistics in Health Sciences (3)**
This course is designed to be a continuation of Research Design in Health Sciences and will further develop skills in statistical design and research procedures. This course will outline the procedures for piloting and collecting data, and will provide guidelines for writing results, discussion and the development of a paper acceptable for submission for publication.

**AT 5630 Principles & Theories of Strength and Conditioning (3)**
This course addresses the advanced study of scientific principles and theories related to strength and condition for varying populations. Discussion relative to concepts and application in the exercise science, testing and evaluation, program design and strength and conditioning facility organization and administration will be emphasized.
Corequisite(s): AT 5640.

**AT 5640 Principles and Theories of Strength and Conditioning Lab (1)**
Practical applications of strength and conditioning principles introduced in AT 5630 (Principles and Theories of Strength and Conditioning).
Emphasis is on exercise testing and technique.
Corequisite(s): AT 5630.
AT 5700 Instructional Strategies in Burdenko Conditioning (1-3)
Students will learn and apply the instructional knowledge base on how to plan, implement, and evaluate comprehensive conditioning programs based on the Burdenko Conditioning method. This method identifies the principles for, and the relationship between, water and land exercises. Students will learn how to use water as a modality to develop the qualities of flexibility, balance, endurance, strength, speed, and coordination.

AT 5800 Current Issues in Athletic Training (3)
This course was designed to provide a forum for discussion of contemporary issues in athletic training. Presentations will be made by students, instructor and guest lecturers.

AT 5810 Clinical Athletic Training I (4)
Clinical Athletic Training I is designed to provide the graduate student in Athletic Training with hands-on experiences with which to understand, recognize, evaluate and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5820 Clinical Athletic Training II (4)
Clinical Athletic Training II is designed to provide the graduate student in Athletic Training with hands-on experiences with which to understand, recognize, evaluate and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5830 Clinical Athletic Training III (4)
Clinical Athletic Training III is designed to provide the graduate student in Athletic Training with hands-on experiences with which to understand, recognize, evaluate and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5845 Clinical Athletic Training IV (10)
Clinical Athletic Training IV is designed to provide the graduate student in Athletic Training with an immersive hands-on experiences with which to understand, recognize, evaluate and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Experience is completed under the direct supervision of a certified athletic trainer.

AT 5875 Special Topics in AT (1-3)
An in-depth study of a particular topic, contemporary issue or concern in Athletic Training. The course will be taught by a specialist in the field related to the topic. May be repeated with a different topic.

AT 5900 Directed Research (1-12)
This course will give students valuable experience in research design, data collection and/or analysis by playing an integral role in a faculty sponsored research project. Repeatable.

AT 5950 Graduate Thesis (1-6)
Students select a topic for study in consultation with their program advisor and related faculty. A time line, thesis proposal and defense are outlined. Two copies of the thesis must be submitted to Lamson Library; bound copies are presented to the thesis committee. Students will be required to enroll in AT 5950 Thesis every term until thesis is complete. Repeatable. Pass/No Pass.

AT 6100 Advanced Practicum in Athletic Training (3)
Practicum in Athletic Training is designed to provide the graduate student in Athletic Training a variety of opportunities to expand their knowledge of the profession. The practicum coordination, content and requirements are determined by the student’s advisor. Repeatable up to 6 credits.