ATHLETIC TRAINING (ATTR)

ATTR 15001 INTRODUCTION TO CLINICAL ATHLETIC TRAINING I 2 Credit Hours
An overview of the profession of athletic training; including employment opportunities, academic and clinical preparation; and introduction to basic knowledge and skills utilized in the profession. Emphasis on leadership, mentoring, ethics and research from an introductory perspective.
Prerequisite: Athletic training (ATTR) major.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 15011 INTRODUCTION TO CLINICAL ATHLETIC TRAINING II 2 Credit Hours
Basic concepts and skills related to the professional domains of the athletic training profession including basic modalities and rehabilitation, research, ethics, palpations, and blood borne pathogens. Moderate to advanced Skills training in padding, splinting, wound care, equipment, bracing, tapings, wrappings, spine immobilization, and basic assessment techniques.
Prerequisite: Athletic training (ATTR) major.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 15092 PRACTICUM IN ATHLETIC TRAINING I (ELR) 3 Credit Hours
The study and clinical application of the competencies in athletic training educational domains. Specific emphasis on the introductory cognitive and psychomotor, as well as foundational behaviors of professional practice. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 15011 and special approval.
Schedule Type: Lecture, Practicum or Internship
Contact Hours: 2 lecture, 12 other
Grade Mode: Standard Letter/IP
Attributes: Experiential Learning Requirement

ATTR 25036 PRINCIPLES OF ATHLETIC TRAINING 3 Credit Hours
Principles of the profession, including injury prevention, basic sports trauma, injury management and specific sports conditions. Practical competency in emergency care and first aid; American Red Cross Professional Rescuer Certification for CPR and AED.
Prerequisite: None.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ATTR 25037 PHYSICAL ASSESSMENT TECHNIQUES FOR THE LOWER EXTREMITY AND SPINE 3 Credit Hours
Anatomical and clinical assessment techniques for injuries and illnesses common to the physically active. Emphasis on orthopedic assessment strategies of the upper and lower quarters and spine for proper referral and care.
Prerequisite: ATTR 25036; and ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 25038 PHYSICAL ASSESSMENT TECHNIQUES FOR THE UPPER EXTREMITY, HEAD AND NECK 3 Credit Hours
Anatomical and clinical assessment techniques for injuries and illnesses with specific emphasis on orthopedic and neurological assessment strategies for the upper extremity, head and neck. Proper referral and care procedures are also be addressed.
Prerequisite: ATTR 25036 and ATTR 25037; and ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 25057 HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) 3 Credit Hours
(Cross-listed with EXSC 25057) Comprehensive examination of anatomy and physiology related to the organization of the body and basic cell and tissue types. Specific structure and function of the muscular, skeletal, cardiovascular, nervous and respiratory systems are addressed.
Prerequisite: none.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

ATTR 25058 HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB) 3 Credit Hours
(Cross-listed with EXSC 25058) Comprehensive examination of anatomy and physiology related to the human body under rest and exercise conditions. Specific structure and function of the metabolic, endocrine, lymphatic, digestive, urinary and reproductive systems are addressed. Advanced coverage of neurological, cardiovascular and respiratory systems are also addressed.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter
Attributes: Kent Core Basic Sciences, Kent Core Basic Sciences Lab

ATTR 25092 PRACTICUM IN ATHLETIC TRAINING II (ELR) 3 Credit Hours
The study and clinical application of the competencies in athletic training educational domains. Specific emphasis on the intermediate cognitive and psychomotor components. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 15092.
Schedule Type: Lecture, Practicum or Internship
Contact Hours: 2 lecture, 15 other
Grade Mode: Standard Letter/IP
Attributes: Experiential Learning Requirement

ATTR 35025 ESSENTIALS OF ATHLETIC INJURY MANAGEMENT 1 Credit Hour
Common injuries related to physical activity and/or athletic participation from the cause, management and care perspectives. American Red Cross sport safety training certification (including adult/child CPR) will be granted. Emphasis on application of skills.
Prerequisite: None.
Schedule Type: Laboratory
Contact Hours: 1 lab
Grade Mode: Standard Letter
ATTR 35037  ADVANCED PHYSICAL ASSESSMENT TECHNIQUES  3 Credit Hours
Anatomical, medical and clinical assessment techniques for injuries and illnesses common to the physically active. Emphasis on neurological and non-orthopedic assessment strategies for proper referral and care.
Prerequisite: ATTR 25037 and ATTR 25038; and ATTR 25058 or BSCI 11020 or BSCI 21020 or EXSC 25058.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 35039  THERAPEUTIC MODALITIES  3 Credit Hours
The study and practical application of physical modalities including physical principles, physiologic effects, indications/contraindications and standard application procedures. Safety and legal issues of modality usage are also addressed.
Prerequisite: ATTR 25036.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ATTR 35040  STRENGTH AND CONDITIONING  2 Credit Hours
Demonstrate didactic understanding and clinical application of energy systems, anatomy and proper techniques for strength and conditioning exercises for practical applications with athletes.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and athletic training (ATTR), exercise science (EXSI) or physical education-professional (PEP) major.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 35045  EMERGENCY MEDICAL TECHNICIAN-BASIC  5 Credit Hours
Preparing for Emergency Medical Technician certification including patient assessment, airway and cardiac management, trauma management, medical patient management and clinical experience. Prepares students to challenge the National Registry Examination for the State of Ohio for EMT-Basic. Clinical hours are required for this course through Hudson EMS.
Prerequisite: none.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 6 lab
Grade Mode: Standard Letter

ATTR 35050  NEUROLOGICAL PROCESS FOR THE HEALTHCARE PROFESSIONAL  3 Credit Hours
Advanced cognitive content in the areas of normal and pathological function of the nervous system and its components. Specific emphasis on the neurophysiological basis for motor learning, special senses, and memory serves to address the central and peripheral nervous system structure and function. Growth and Development and pathological responses to hypoxia, microbiologic agents, genetic derangements, nutritional deficiencies, chemicals, drugs and aging are addressed.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 35054  BIOMECHANICS  3 Credit Hours
(Cross-listed with EXSC 35054) Anatomical and mechanical bases of human movement. Emphasis is placed on tools and techniques for motion analysis, mechanical concepts, forces and performance analysis. Lecture and laboratory.
Prerequisite: ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 35092  PRACTICUM IN ATHLETIC TRAINING III (ELR)  3 Credit Hours
The study and clinical application of the competencies in athletic training educational domains. Specific emphasis on the intermediate and advanced cognitive and psychomotor components. Clinical hours and completion of specific competencies are required.
Prerequisite: ATTR 25092.
Schedule Type: Lecture, Practicum or Internship
Contact Hours: 2 lecture, 15 other
Grade Mode: Standard Letter/IP
Attributes: Experiential Learning Requirement

ATTR 43018  ETHICS FOR ALLIED HEALTH PROFESSIONALS (WIC)  3 Credit Hours
Examination of specific situations in the allied health professions of athletic training and exercise science from an ethical sensitivity, reasoning and decision making perspective. A problem-oriented case study approach based on contemporary moral issues and moral theory related to clinical and academic health professions.
Prerequisite: senior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

ATTR 45017  PROFESSIONAL DEVELOPMENT IN ATHLETIC TRAINING  3 Credit Hours
An investigation of the issues affecting the student athletic trainer as they prepare for an entry-level career in athletic training. Professional development issues and NATABOC exam preparation are included.
Prerequisite: Senior standing; athletic training majors only.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 45038  ORGANIZATION AND ADMINISTRATION OF ATHLETIC TRAINING  3 Credit Hours
(Cross-listed with ATTR 55038) Investigation into current philosophies and legal aspects of athletic training. Organization and administration of all aspects of athletic training programs.
Prerequisite: ATTR 25036.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 45039  THERAPEUTIC REHABILITATION  3 Credit Hours
(Cross-listed with ATTR 55039) The study and clinical application of rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration and guidelines for program progression.
Prerequisite: ATTR 25036; and ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010.
Schedule Type: Combined Lecture and Lab
Contact Hours: 2 lecture, 1 lab
Grade Mode: Standard Letter
ATTR 45040  PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS  3 Credit Hours
(Cross-listed with ATTR 55040) Investigation of specific pathological conditions presented by professionals, including physicians and pharmacists. Will discuss common pathologies, associated pharmacological treatment and physiologic effects for various afflictions. **Prerequisite:** ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020. **Schedule Type:** Lecture **Contact Hours:** 3 lecture **Grade Mode:** Standard Letter

ATTR 45041  ADVANCED THERAPEUTIC INTERVENTIONS  3 Credit Hours
Addresses the physiological considerations of specific injuries and conditions commonly encountered in the athletic training profession. Focus is on contemporary rehabilitative programming for all of the major body regions. Specific units on Aquatic therapy and rehabilitation, Neurological considerations for rehabilitation, Return to Running Considerations, and Return to Throwing protocols are included. **Prerequisite:** ATTR 25057 or EXSC 25057 or BSCI 11010 or BSCI 21010; and ATTR 25058 or EXSC 25058 or BSCI 11020 or BSCI 21020; and ATTR 35054 and ATTR 45039. **Schedule Type:** Combined Lecture and Lab **Contact Hours:** 2 lecture, 1 lab **Grade Mode:** Standard Letter

ATTR 45091  SENIOR SEMINAR IN ATHLETIC TRAINING  1 Credit Hour
(Repeatable for credit) Contemporary issues related to preparing students for entry-level careers in the athletic training profession including development of the foundational behaviors of professional practice. Specific emphasis on employment preparation or graduate school preparation. **Prerequisite:** senior standing and athletic training (ATTR) major. **Schedule Type:** Seminar **Contact Hours:** 1 lecture **Grade Mode:** Standard Letter

ATTR 45096  INDIVIDUAL INVESTIGATION IN ATHLETIC TRAINING  1-3 Credit Hours
(Repeatable for a maximum of 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and school director required prior to registration. **Prerequisite:** special approval. **Schedule Type:** Individual Investigation **Contact Hours:** 3-9 other **Grade Mode:** Standard Letter-IP

ATTR 45192  PRACTICUM IN ATHLETIC TRAINING IV (ELR)  3 Credit Hours
The study and clinical application of competencies in athletic training educational domains. Specific emphasis on the advanced cognitive and psychomotor components. Clinical hours and completion of specific competencies are required. **Prerequisite:** ATTR 35092. **Schedule Type:** Lecture, Practicum or Internship **Contact Hours:** 2 lecture, 15 other **Grade Mode:** Standard Letter-IP **Attributes:** Experiential Learning Requirement

ATTR 45292  INTERNSHIP IN ATHLETIC TRAINING I (ELR)  3 Credit Hours
Internship in approved athletic training setting under the direct supervision of a certified athletic trainer. Students complete 20 hours per week in a clinical experience. **Prerequisite:** ATTR 45192 and special approval. **Schedule Type:** Lecture, Practicum or Internship **Contact Hours:** 1 lecture, 20 other **Grade Mode:** Standard Letter-IP **Attributes:** Experiential Learning Requirement

ATTR 45392  INTERNSHIP IN ATHLETIC TRAINING II (ELR)  3 Credit Hours
Internship in an approved athletic training setting under the supervision of a certified and licensed athletic trainer. Students are required to perform 20 hours per week in clinical experience. **Prerequisite:** ATTR 45292 and special approval. **Schedule Type:** Lecture, Practicum or Internship **Contact Hours:** 1 lecture, 20 other **Grade Mode:** Standard Letter-IP **Attributes:** Experiential Learning Requirement

ATTR 46095  SPECIAL TOPICS IN ATHLETIC TRAINING  1-3 Credit Hours
(Repeatable for credit) Selected topics in athletic training dependent upon interest. **Prerequisite:** none. **Schedule Type:** Lecture **Contact Hours:** 1-3 lecture **Grade Mode:** Standard Letter

ATTR 55038  ORGANIZATION AND ADMINISTRATION OF ATHLETIC TRAINING  3 Credit Hours
(Cross-listed with ATTR 45038) Investigation into current philosophies and legal aspects of athletic training. Organization and administration of all aspects of athletic training programs. **Prerequisite:** ATTR 25036 and graduate standing. **Schedule Type:** Lecture **Contact Hours:** 3 lecture **Grade Mode:** Standard Letter

ATTR 55039  THERAPEUTIC REHABILITATION  3 Credit Hours
(Cross-listed with ATTR 45039) The study and clinical application of rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration, and guidelines for program progression. **Prerequisite:** graduate standing. **Schedule Type:** Combined Lecture and Lab **Contact Hours:** 2 lecture, 2 lab **Grade Mode:** Standard Letter

ATTR 55040  PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS  3 Credit Hours
Investigation of specific pathological conditions presented by professionals, including physicians and pharmacists. Will discuss common pathologies, associated pharmacological treatments and physiologic effects for various afflictions. **Prerequisite:** ATTR 25058 or EXSC 25058 **Schedule Type:** Lecture **Contact Hours:** 3 lecture **Grade Mode:** Standard Letter
ATTR 60000  CADAVAER ANATOMY AND APPLIED ASSESSMENT   6 Credit Hours  
Cadaver dissection with emphasis on the systems of the body to understand structure and function of the anatomical structures. Applied assessment components integrate functional assessment and diagnostic signs and symptoms of common athletic training conditions and injuries. Evidence-based assessment will be infused throughout the course. 
Prerequisite: graduate standing; and Athletic Training (ATTR) major within the Master of Science (MS) degree. 
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab 
Contact Hours: 3 lecture, 6 lab 
Grade Mode: Standard Letter 

ATTR 61000  ACUTE INJURY DIAGNOSIS, TREATMENT AND MANAGEMENT   3 Credit Hours  
Mechanisms of acute injuries will provide the foundation for the integration of evidence-based knowledge in the diagnosis, treatment and management of athletic training injuries. Contemporary clinical guidelines and management strategies will provide a framework for critical thinking and practical application. 
Prerequisite: graduate standing. 
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab 
Contact Hours: 2 lecture, 2 lab 
Grade Mode: Standard Letter 

ATTR 62010  CONTEMPORARY ISSUES IN ATHLETIC TRAINING   3 Credit Hours  
A comprehensive examination of contemporary issues, trends and problems affecting athletic training professionals related to the domains of practice for athletic trainers. 
Prerequisite: Graduate standing. 
Schedule Type: Lecture 
Contact Hours: 3 lecture 
Grade Mode: Standard Letter 

ATTR 62012  EDUCATION AND SUPERVISION PROCESSES IN ATHLETIC TRAINING   3 Credit Hours  
A comprehensive examination of educational learning theories, curriculum design, evaluation and supervision strategies in athletic training education programs from didactic and clinical perspectives. Additional applications for continuing education programs will be included. 
Prerequisite: Graduate standing. 
Schedule Type: Lecture 
Contact Hours: 3 lecture 
Grade Mode: Standard Letter 

ATTR 62014  ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE   3 Credit Hours  
Advanced clinical practice theory and skills as they relate to the profession of athletic training and sports medicine. Emphasis on contemporary clinical practice issues for a variety of athletic training and sports medicine professional settings. 
Prerequisite: graduate standing. 
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab 
Contact Hours: 2 lecture, 2 lab 
Grade Mode: Standard Letter 

ATTR 62016  CLINICAL INQUIRY IN ATHLETIC TRAINING   3 Credit Hours  
Principles of athletic training research methodologies with a focus on clinical athletic training research. Completion of a clinical research project will be required in this course. 
Prerequisite: Graduate standing. 
Schedule Type: Lecture 
Contact Hours: 3 lecture 
Grade Mode: Standard Letter 

ATTR 63018  ETHICS FOR HEALTH CARE PROFESSIONALS   3 Credit Hours  
Examination of specific situations in the allied health professions of athletic training and exercise science from an ethical sensitivity, reasoning and decision making perspective. A problem-oriented case study approach based upon contemporary moral issues and moral theory related to clinical and academic health professionals. 
Prerequisite: graduate standing. 
Schedule Type: Lecture 
Contact Hours: 3 lecture 
Grade Mode: Standard Letter 

ATTR 63094  COLLEGE TEACHING IN HEALTH SCIENCES   3 Credit Hours  
(Repeatable for a maximum of 6 credit hours) Guided teaching experiences in the Health Sciences. Specific emphasis on establishing and implementing a teaching philosophy in an instructional setting in the Health Sciences. Development of Professional Teaching Behaviors will be addressed. A comprehensive teaching experience rooted in contemporary teaching literature will guide this course. 
Prerequisite: graduate standing and special approval. 
Schedule Type: Lecture, Seminar 
Contact Hours: 1 lecture, 2 other 
Grade Mode: Standard Letter 

ATTR 63095  RESEARCH SEMINAR   1 Credit Hour  
(Repeatable for credit) (Cross-listed with ATTR 73095 and EXPH 63095 and EXPH 73095 and SRM 63095 and SRM 73095) Presentation and discussion of research by faculty and students. A total of 2 credits may be applied toward degree requirements. 
Prerequisite: Graduate standing. 
Schedule Type: Seminar 
Contact Hours: 3 other 
Grade Mode: Satisfactory/Unsatisfactory 

ATTR 63096  INDIVIDUAL INVESTIGATION IN ATHLETIC TRAINING   1-3 Credit Hours  
(Repeatable for a maximum of 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and School director required prior to registration. 
Prerequisite: graduate standing and special approval. 
Schedule Type: Individual Investigation 
Contact Hours: 3-9 other 
Grade Mode: Standard Letter-IP 

ATTR 63098  RESEARCH   1-15 Credit Hours  
(Repeatable for credit) (Cross-listed with EXPH 63098 and SRM 63098 and EXPH 83098) Research or individual investigation. 
Prerequisite: Graduate standing. 
Schedule Type: Research 
Contact Hours: 1-15 other 
Grade Mode: Standard Letter-S/U-IP
ATTR 63193  VARIABLE TITLE WORKSHOP IN ATHLETIC TRAINING  
1-3 Credit Hours  
(Repeatable for credit) Workshop in athletic training; topics vary.  
Maximum 4 hours applied to the degree.  
Prerequisite: graduate standing.  
Schedule Type: Workshop  
Contact Hours: 1-3 other  
Grade Mode: Satisfactory/Unsatisfactory

ATTR 63195  SPECIAL TOPICS IN ATHLETIC TRAINING  
1-3 Credit Hours  
(Repeatable for a maximum of 6 credit hours) Selected and varied topics of relevance in athletic training.  
Prerequisite: graduate standing.  
Schedule Type: Lecture  
Contact Hours: 1-3 lecture  
Grade Mode: Satisfactory/Unsatisfactory-IP

ATTR 63199  THESS I  
2-6 Credit Hours  
(Cross-listed with EXPH 63199 and SRM 63199) Thesis students must register for a total of 6 hours, 2 to 6 hours in a semester distributed over several semesters if desired.  
Prerequisite: Graduate standing.  
Schedule Type: Masters Thesis  
Contact Hours: 2-6 other  
Grade Mode: Satisfactory/Unsatisfactory-IP

ATTR 63299  THESS II  
2 Credit Hours  
(Cross-listed with EXPH 63299 and SRM 63299) Thesis students must continue registration each semester until all degree requirements are met.  
Prerequisite: ATTR 63199 and graduate standing.  
Schedule Type: Masters Thesis  
Contact Hours: 2 other  
Grade Mode: Satisfactory/Unsatisfactory-IP

ATTR 65001  CLINICAL PRACTICE I: PREVENTION AND WELLNESS  
3 Credit Hours  
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to prevention of injuries and medical conditions and overall wellness will be the primary focus. Engagement in an inter-professional environment with specific competencies for research and ethical case analysis are required. Students must complete a minimum of 180 hours in clinicals.  
Prerequisite: Athletic Training [ATTR] major within the Master of Science [MS] degree; and graduate standing.  
Schedule Type: Clinic  
Contact Hours: 12 other  
Grade Mode: Standard Letter

ATTR 65002  CLINICAL PRACTICE II: ADVANCED HEAD, NECK AND ORTHOPEDIC  
3 Credit Hours  
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to Head, Neck, and Orthopedic conditions and overall wellness will be the primary focus. Engagement in an inter-professional environment with specific competencies for research and ethical case analysis are required. Student must complete a minimum of 180 hours in clinicals.  
Prerequisite: Athletic Training [ATTR] major within the Master of Science [MS] degree; and graduate standing.  
Schedule Type: Clinic  
Contact Hours: 12 other  
Grade Mode: Standard Letter

ATTR 65003  CLINICAL PRACTICE III: GENERAL MEDICAL  
3 Credit Hours  
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to general medical conditions will be the primary focus. Engagement in an inter-professional environment including rotations with physicians and/or nurse practitioners with specific competencies for research and ethical case analysis are required. Student must complete a minimum of 180 hour in clinicals.  
Prerequisite: Athletic Training [ATTR] major within the Master of Science [MS] degree; and graduate standing.  
Schedule Type: Clinic  
Contact Hours: 12 other  
Grade Mode: Standard Letter

ATTR 65004  BIOMECHANICS  
3 Credit Hours  
(Cross-listed with EXPH 75004) Survey of biomechanics, with particular emphasis on skeletal muscle mechanics. Prerequisites: graduate standing  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter

ATTR 65005  CLINICAL PRACTICE IV: ADVANCED COMPETENCIES  
3 Credit Hours  
Clinical practicum in an athletic training setting under the direct supervision of a certified, licensed health care provider. Emphasis on the development of clinical competencies related to advanced competencies and skills in athletic training will be the primary focus. Engagement in an inter-professional environment with specific competencies for research and ethical case analysis are required. Student must complete a minimum of 180 hours in clinicals.  
Prerequisite: Athletic Training [ATTR] major within the Master of Science [MS] degree; and graduate standing.  
Schedule Type: Clinic  
Contact Hours: 12 other  
Grade Mode: Standard Letter

ATTR 65037  PHYSICAL AGENTS IN ATHLETIC TRAINING AND SPORTS MEDICINE  
3 Credit Hours  
The study and practical application of physical modalities including physical principles, physiologic effects, indications-contradictions, and standard application procedures. Safety and legal issues of modality usage are also addressed.  
Prerequisite: graduate standing.  
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter

ATTR 65038  ADMINISTRATION CONCEPTS FOR THE HEALTHCARE PROFESSIONAL  
3 Credit Hours  
Investigation into current philosophies and legal aspects of athletic training and sports medicine programs. Organization and administration of all aspects of athletic training and sports medicine programs with specific emphasis on policy and regulation of programs anchored in contemporary healthcare practices.  
Prerequisite: graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter
ATTR 65039  PHYSICAL REHABILITATION IN ATHLETIC TRAINING AND SPORTS MEDICINE  3 Credit Hours
The study and clinical application of evidence-based rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration, and guidelines for program progression. This course will address the comprehensive concepts related to the rehabilitation of including but not limited to modality selection, pharmacological considerations, record keeping, program design and implementation, and safety aspects. The psychology of rehabilitation including goal setting and motivation will also be addressed. Current literature and techniques in the field will support the content of this course.
Prerequisite: graduate standing.
Schedule Type: Laboratory, Lecture, Combined Lecture and Lab
Contact Hours: 2 lecture, 2 lab
Grade Mode: Standard Letter

ATTR 65040  PATHOPHARMACOLOGY FOR HEALTHCARE PROVIDERS  3 Credit Hours
Advanced investigation of specific pathological conditions presented by professionals, including physicians and pharmacists. Will discuss common pathologies, associated pharmacological treatment and physiologic effects for various afflictions anchored in evidence-based practice in health care.
Prerequisite: graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 65050  NEUROLOGICAL CONCEPTS FOR THE HEALTHCARE PROFESSIONAL  3 Credit Hours
Advanced cognitive content in normal and pathological function of the nervous system and its components. Specific emphasis on the neurophysiological basis for motor learning, special senses, and memory serves to address the central and peripheral nervous system structure and function. Growth and Development and pathological responses to hypoxia, microbiologic agents, genetic derangements, nutritional deficiencies, chemicals, drugs and aging are addressed. Evidence-based practice concepts will guide the integration from anatomy and physiology to effective interventions for selected neurological conditions.
Prerequisite: graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ATTR 69999  CLINICAL CAPSTONE IN ATHLETIC TRAINING  6 Credit Hours
Clinical Capstone is an intensive, immersion experience in the clinical setting under the direct supervision of a certified, licensed health care professional. Students will invest a minimum of 360 in the clinical setting working with inter-professional health care providers. Clinical capstone expectations include performance evaluations by supervisors and patient management to promote active clinical engagement and critical thinking. A portfolio will include professional skill assessments, performance assessment, case studies, mock interview, and formal evidence-based presentation to health care providers on an athletic training domain.
Prerequisite: graduate standing; and Athletic Training (ATTR) major within the Master of Science (MS) degree.
Schedule Type: Clinic
Contact Hours: 24 other
Grade Mode: Standard Letter

ATTR 73094  COLLEGE TEACHING IN HEALTH SCIENCES  3 Credit Hours
Guided teaching experiences in health sciences. Specific emphasis on establishing and implementing a teaching philosophy in an instructional setting in the health sciences. Development of Professional Teaching Behaviors will be addressed. A comprehensive teaching experience rooting in contemporary literature will guide this course.
Prerequisite: doctoral standing and special approval.
Schedule Type: Lecture, Seminar
Contact Hours: 1 lecture, 2 other
Grade Mode: Standard Letter

ATTR 73095  RESEARCH SEMINAR  1 Credit Hour (Repeatable for credit) (Cross-listed with ATTR 63095 and EXPH 63095 and EXPH 73095 and SRM 63095 and SRM 73095) Presentation and discussion of research by faculty and students. A total of 2 credits may be applied toward degree requirements.
Prerequisite: Doctoral standing.
Schedule Type: Seminar
Contact Hours: 1 other
Grade Mode: Satisfactory/Unsatisfactory