

KINESIOLOGY AND SPORT SCIENCES

<https://kin.edu.miami.edu/index.html>

Dept. Code: KIN

Programs

Doctor of Philosophy (Ph.D.)

- Exercise Physiology

Master of Science in Athletic Training (M.S.A.T.)

- Athletic Training

Master of Science in Education (M.S.Ed.)

- Applied Physiology
- Sport Administration
- Sport Administration (Online)

Masters Programs in Kinesiology and Sport Sciences

- M.S. in Athletic Training (<https://bulletin.miami.edu/graduate-academic-programs/education-human-development/kinesiology-sport-sciences/msed-athletic-training/>)
- M.S.Ed. in Applied Physiology (<https://bulletin.miami.edu/graduate-academic-programs/education-human-development/kinesiology-sport-sciences/exercise-physiology-msed/>)
- M.S.Ed. in Sport Administration (<https://bulletin.miami.edu/graduate-academic-programs/education-human-development/kinesiology-sport-sciences/sport-administration-msed/>)
- M.S.Ed. in Sport Administration (Online) (<https://bulletin.miami.edu/graduate-academic-programs/education-human-development/kinesiology-sport-sciences/online-sport-administration-msed/>)

Doctoral Programs in Kinesiology and Sport Sciences

- Ph.D. in Exercise Physiology (<https://bulletin.miami.edu/graduate-academic-programs/education-human-development/kinesiology-sport-sciences/exercise-physiology-phd/>)

KIN 601. Organization and Administration of Sport Programs. 3 Credit Hours.

Administrative and organizational procedures and problems specific to athletic administration, recreation and leisure sports administration, and physical education.

Components: DIL.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 602. Fiscal Management in Sport Administration. 3 Credit Hours.

Fiscal management as related to athletic sports administration, recreation and leisure sports administration, and physical education.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 603. Principles of Sport Marketing. 3 Credit Hours.

This course will focus on the vast world of sports marketing. The basic principles of marketing and marketing management will be introduced and integrated with application of these principles to sport and sports-related organizations.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 604. Essential Leadership Skills in Sport. 3 Credit Hours.

This course will examine the concept of leadership as it pertains to sports and other professions. Various leadership and management skills will be included with a focus on practical applications in a work environment. Theory and self-assessment strategies will be incorporated.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 605. Sport Sponsorship and Promotion. 3 Credit Hours.

This course is designed to provide a detailed examination of the relationship between sport and corporate sponsorship. Topics covered will include the theoretical premise of sponsorship, alignment marketing, strategic communication through sponsorship, sponsorship sales and service, determining the value of sponsorship, and evaluation of sponsor activities. Individual athlete endorsement and mega-event sponsorship such as the Olympics will be examined in-depth. Objectives, risks, and benefits from the property or platform offering a sponsorship and from the sponsoring organization will be considered.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 606. Ethical Decision Making in Sports. 3 Credit Hours.

This course will examine ethical decision-making in a variety of environments with an emphasis on sport professions. Real and hypothetical situations will be utilized, and the course will combine theory with practical application. The case method in sport ethics will be incorporated.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 607. Legal Aspects of Sports. 3 Credit Hours.

Legal liability, personal injury, negligence and other related legal aspects of sports and exercise science.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 608. Advanced Globalization in Sport. 3 Credit Hours.

This course will address the intertwined relationship between globalization, sport, and development from a critical global perspective. This course highlights the extent to which contemporary sport cultures are the result of an interplay between local and global forces. We will explore the international character of professional and amateur sports including international competitions, league expansions beyond national boundaries, and the movement of athletes. Course topics include international sport organization, international competition, sport governance, international dispute resolution, international sports law, and new media.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 609. Advanced Sport Information Management. 3 Credit Hours.

This course examines the complex fields of sport communication. Students will investigate the unique, symbiotic relationship that exist between sport and the media; examine various theoretical framework (e.g., agenda set, hegemonic, uses and gratification, elaboration likelihood model) that are pertinent to developing an understanding of the sport/media complex.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 610. Event Management. 3 Credit Hours.

This course is designed to introduce students to principles and practices of planning, funding and managing facilities associated with sports participation including professional sport venues, college sports, parks, recreational sport and health/fitness clubs. Students will gain an understanding of promoting, marketing, and maintaining sport facilities.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 611. Field Experience in Sport Administration I. 1-3 Credit Hours.

Practical experience not ordinarily available through coursework sequences. Placement in a variety of settings, clinics, public and private voluntary agencies and schools. Supervised by a faculty member of the department.

Components: PRA.

Grading: GRD.

Typically Offered: Fall.

KIN 612. Field Experience in Sport Administration II. 1-3 Credit Hours.

Practical experience not ordinarily available through coursework sequences. Placement in a variety of settings, clinics, public and private voluntary agencies and schools. Supervised by a faculty member of the department.

Components: SEM.

Grading: GRD.

Typically Offered: Spring.

KIN 613. Field Experience in Sport Administration III. 1-3 Credit Hours.

Practical experience not ordinarily available through coursework sequences. Placement in a variety of settings, clinics, public and private voluntary agencies and schools. Supervised by a faculty member of the department.

Components: PRA.

Grading: GRD.

Typically Offered: Summer.

KIN 616. Advanced Sport Governance. 3 Credit Hours.

This course provides the student with an examination of the governing organizations of sport at the youth, secondary, intercollegiate, professional, international, sport specific and Olympic levels. In addition, policy development in sport management will be explored.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 617. Creative Approaches to Problem Solving and Conflict Management. 3 Credit Hours.

This hands-on course will examine the concepts of problem solving and conflict management from both personal and organizational perspectives. Students will have the opportunity to study in-depth both of these concepts (and the relationships between them) through a combination of lecture, theory, individual and group activities, readings, practical exercises, and self-assessment tools.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 620. Contemporary Issues in Sport. 3 Credit Hours.

Problem identification, investigation, analysis, and problem solving approaches in Kinesiology and Sport Sciences.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 621. Advanced Systemic Exercise Physiology. 3 Credit Hours.

This course reflects a culmination of information in systemic exercise physiology applied to health promotion, disease prevention, and performance. From homeostasis to musculoskeletal physiology and from central/peripheral fatigue and muscle soreness to cardiorespiratory physiology, this course provides an in-depth, background review of each topic in the field. Topics will address how nutritional considerations improve performance, timing of intake, and a description of how to maximize utilization of specific nutrients. The application side focuses on training concomitant with nutritional considerations, endogenous production of hormones, proteins, and cytokines that act to increase, decrease and/or stabilize work capacity. Students will be able to understand and interpret physiological concepts, terminology, and the latest research literature published in the field.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

KIN 624. Athletic Training Techniques - Manual Therapy. 2 Credit Hours.

This course will introduce theoretical concepts and hands-on techniques to mobilize joints and soft tissue in order to modulate pain, facilitate healing, and restore mobility and function.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

KIN 625. Applied Biomechanics in Athletic Training. 3 Credit Hours.

In-depth study of the human skeletal and muscular systems with a focus on the mechanics of movement as related to physical activity, sports, and athletics.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 630. Cellular Exercise Physiology. 3 Credit Hours.

The course examines Bioenergetics and Muscular Physiology in training and detraining. Topics include the energy systems and their functional application during exercise, muscle structure and function, cellular and sub-cellular modifications of organelles and contractile mechanisms as result of training and physiological bases of training techniques.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 631. Laboratory Techniques in Functional Evaluation of Skeletal Muscle. 3 Credit Hours.

This course examines the theories of data collection and collection techniques used to evaluate musculo-skeletal and neuromuscular function. The application of both computerized and non-computerized collection systems for performance evaluation is covered. The course is also designed to establish a clear linkage between the acute and chronic musculo-skeletal and neuromuscular changes that occur during exercise and the laboratory methods used to assess those changes. Collection theory, musculoskeletal and neuromuscular function, methods of strength evaluation, anaerobic power testing, electromyography, and a number of other functional parameters will be discussed.

Components: LAB.

Grading: GRD.

Typically Offered: Fall.

KIN 634. Integrative and Functional Nutrition. 3 Credit Hours.

This course will discuss integrative and functional medicine and how it emerged. This course will analyze the healthcare models that include personalized care and the whole-person perspective. In this course we will discuss various factors that influence disease including diet and nutrition, stress, activity level, pharmaceuticals and environmental pollutants. Alternative approaches to treatment will also be discussed.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 636. Strength and Conditioning I. 3 Credit Hours.

This course serves as the practical/technical foundation for major compound movements and Olympic lifts. It also provides comprehension of movement specific dynamic warm-ups, advanced stretching techniques, methods for identifying movement compensations and underlying issues as well as evaluating Olympic techniques. Due to the practical nature of the course, all the sections of this course are held in the Hecht Athletic Center (HAC).

Components: LAB.

Grading: GRD.

Typically Offered: Fall.

KIN 637. Strength and Conditioning II. 3 Credit Hours.

This course is the continuation of Strength and Conditioning I (KIN 536). It provides more advanced Olympic weightlifting techniques and ballistic training, alongside a continued focus on corrective exercises to ensure a reduced risk of injury. The course also provides an introduction to exercise programming including specialized training techniques for athletic development. Due to the practical nature of the course, all sections of this course are held in the Hecht Athletic Center (HAC).

Components: LAB.

Grading: GRD.

Typically Offered: Spring.

KIN 638. Nutrition during the Lifecycle. 3 Credit Hours.

This course is designed to examine the changes in nutrition requirements during the life cycle, particularly as related to growth, development and aging. Psychosocial, cultural, and economic issues related to food intake at various life stages will be reviewed.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 642. Strength and Conditioning. 3 Credit Hours.

A comprehensive overview of strength and conditioning.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

KIN 645. Therapeutic Lifestyle to Combat Chronic Disease. 3 Credit Hours.

This course will offer students an opportunity to gain in-depth knowledge of chronic diseases plaguing Americans and the lifestyle modifications that can be implemented for improved health. Additionally, a discussion on emerging digital technologies and current healthcare policy trends shifting toward proactive approaches could serve as potential avenues of growth for exercise physiologists.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 646. Elite Conditioning I. 3 Credit Hours.

Elite Conditioning I provides an introduction to evaluation techniques catered specifically to the athletic population including tests for strength, power, speed, agility, balance and stability. The course also provides instruction on how to apply these evaluations to their respective sports/positions.

These evaluation techniques provide data that students will use in the process of corrective exercise prescription. Students are taught how to implement corrective strategies to improve athletic performance. Due to the practical nature of the course, all sections of this course are held in the Hecht Athletic Center(HAC).

Components: LAB.

Grading: GRD.

Typically Offered: Fall.

KIN 647. Elite Conditioning II. 3 Credit Hours.

Elite Conditioning II is the continuation of Elite Conditioning I (KIN 546). This course provides students with an understanding of the design and implementation of periodized conditioning programs for athletes based on the testing, evaluation, and applications to specific sports learned in Elite Conditioning I. The course focuses on speed agility and quickness for sports. It also includes practical implementation of ballistic, plyometric, speed, and conditioning drills emphasizing evidence based methods and training techniques. Due to the practical nature of the course, all sections of this course are held in Hecht Athletic Center(HAC).

Components: LAB.

Grading: GRD.

Typically Offered: Spring.

KIN 650. Nutritional Biochemistry. 3 Credit Hours.

To learn the fundamental biochemical structure and pathways governing nutrient intake and utilization. Students will learn how major forms of nutrients (macro-nutrients, vitamins, minerals and trace elements) are processed and utilized by different organs with a particular emphasis on muscle metabolism. Students will also learn how to relate their newly acquired knowledge to health and disease outcomes with focus on lifestyles disease related to metabolism such as diabetes and obesity.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

KIN 657. Diagnostic Imaging Techniques in Sports Medicine. 2 Credit Hours.

This course is designed as an elective for undergraduate KIN students or graduate students. The basic physics of radiological imaging will be covered including radiology, fluoroscopy, CT scan, ultrasound, MRI, and nuclear medicine including image archiving. Normal anatomy will be compared to the corresponding radiographic anatomy. Common sports injuries will be evaluated by multiple radiographic modalities and will be correlated with the clinical condition. Discussion will include bony pathology as well as soft tissues such as ligaments, tendons, and menisci.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

KIN 660. Athletic Training Clinical Skills. 3 Credit Hours.

This course will include a focus on emergency preparedness and readiness through patient simulation. Clinical Skills covered will include taping/wrapping, splinting, spine boarding/ transport techniques, wound care, and patient assessment. As part of this course students will obtain American Heart Association BLS CPR/AED certification for the Health Care Providers (or approved equivalent).

Components: LAB.

Grading: GRD.

Typically Offered: Summer.

KIN 661. Facility Management. 3 Credit Hours.

Facility management provides students with an understanding of fitness entrepreneurship, giving students a comprehensive understanding of the laws, regulations, policies, and work involved in setting up a fitness facility such as a gym, wellness center, or athletic training center. Students are responsible for developing a viable sports or fitness complex including all aspects of administrative and facility management.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 662. Fitness Facility Management II. 3 Credit Hours.

Fiscal management as related to athletic sports administration, recreation and leisure sports administration, and physical education.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 663. Foundations of Athletic Training. 3 Credit Hours.

This course will cover foundational knowledge in Athletic Training with an emphasis on health promotion and injury and disease prevention. Public Health and Epidemiology, Nutrition Health and Wellness, and basic principles of Exercise Physiology will be covered. Students will be required to complete an IPE service learning project with another health professional to promote health, wellness, or physical activity research, practice, and/or policy on campus or at the community, state, or federal level. Prerequisite: American Heart Association BLS CPR/AED certification for the Health Care Providers (or approved equivalent).

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

KIN 664. Orthopedic Assessment 1: Pathophysiology of Injuries. 3 Credit Hours.

This course provides the student with an analysis of the etiology, pathology, and clinical science of muscular and skeletal diseases, disorders, and conditions. An introduction to clinical/laboratory assessment techniques, basic injury management, and knowledge of common imaging and surgical procedures are presented.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 665. Orthopedic Assessment 2: Examination of the Musculoskeletal System. 3 Credit Hours.

This course will prepare students to examine a patient with a musculoskeletal condition by obtaining a pertinent history from the patient, performing relevant systems review, and by selecting appropriate diagnostic tests and measures. The student will be able to synthesize examination data to complete the orthopedic evaluation and engage in the diagnostic process.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 667. Elements of Sports Psychology. 3 Credit Hours.

Introduction to the study of sport and exercise psychology including theory, current research and practical application.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

KIN 669. The Foundations of Exercise Programming. 3 Credit Hours.

Students will learn various assessments of Health and Wellness, and discover how to most effectively prescribe exercise strategies to treat the diagnosed needs of an individual.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 670. Advanced Programming. 3 Credit Hours.

Advance programming allows students to dissect sports by movement, metabolism and limitation. The course investigates current trends and evidenced based applications of specific training techniques for optimal sport performance. Students will perform complete sports analysis and develop periodized programs for major sports.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 674. Orthopedic Assessment Lab 1. 2 Credit Hours.

This laboratory course will cover techniques used to evaluate orthopedic and sport injuries occurring to the Lower Extremity and Spine.

Co-requisite is KIN 664.

Components: LAB.

Grading: GRD.

Typically Offered: Fall.

KIN 675. Orthopedic Assessment Lab 2. 2 Credit Hours.

This laboratory course will cover techniques used to evaluate orthopedic and sport injuries occurring to the Upper Extremity and Spine.

Co-Requisite KIN 665.

Components: LAB.

Grading: GRD.

Typically Offered: Spring.

KIN 677. Advanced Nutrition for Health and Fitness. 3 Credit Hours.

This course presents an in-depth study of the nutritional concerns of today's Recreational and competitive athlete. Topics include dehydration, classic carbohydrate loading, protein needs, ergogenic aids, and more. State-of-the-art research in the field is provided. This is also a writing intensive course. Thus, writing skills will represent an integral part of one's grade.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 679. Principles of Exercise Prescription/Assessment: Cardiovascular. 3 Credit Hours.

This course presents a comprehensive overview of the physical, physiological and metabolic responses of the human body to exercise testing and training both in health and disease. The successful student will gain an understanding of the process involved in prescribing safe and effective therapeutic exercise in healthy individuals as well as patients with heart and lung disease, diabetes and obesity. An overview of environmental and legal considerations in the prescriptive process will also be discussed.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 682. Clinical Pathology and Immediate Primary Care. 3 Credit Hours.

This course will focus on the pathology of non-orthopedic conditions including medical emergencies. Students will be able to recognize common injuries and illnesses, provide immediate treatment interventions, and make medical referrals and transport decisions when necessary. Pre- requisite: KIN663 and Current AHA BLS CPR/AED certification for the Health Care Providers (or approved equivalent as determined by ECC requirements from the BOC).

Prerequisite: KIN 663.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 686. Exercise Prescription/Assessment Laboratory. 3 Credit Hours.

This course presents an overview of the laboratory techniques used to assess cardiovascular endurance and general fitness, pulmonary function and anaerobias observed during competition.

Components: LAB.

Grading: GRD.

Typically Offered: Spring.

KIN 688. Advanced Gross Anatomy in Kinesiology and Sport Sciences. 3 Credit Hours.

Human dissection of the major muscles, arteries, and nerves of the body. This course is held at the Medical Campus, cadaver laboratory. Special consideration is given to injury sites in sports such as the knee, shoulder, elbow, neck and spinal areas. Students are required to pay a \$100 laboratory fee for the class. This course is to be taken by Athletic Training majors only.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 689. Directed Readings in Kinesiology and Sport Sciences. 3 Credit Hours.

Directed Readings focusing on research and contemporary trends in the field.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 690. Special Topics in Kinesiology and Sport Sciences. 1-3 Credit Hours.

This course is designed for students wishing to focus on a specific area of study within the umbrella of the Kinesiology and Sport Sciences curriculum. Students will be given supervision and support in a direction relevant to their needs and interests in a structured setting.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 699. Advanced Programming for Endurance Athletes. 3 Credit Hours.

This course provides students with training techniques to improve aerobic capacity, endurance, and lactate threshold for optimal performance. Students will review evidenced based principles of sports nutrition, strategies to ensure proper hydration, thermoregulation, and fuel (substrate) availability during prolonged exercise as well as develop programs for competitive sports including triathlon, marathon, and cycling.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

KIN 700. Supervised Practicum for M.S.. 1-3 Credit Hours.

MS Students will be engaged in supervised experiential learning designed especially for their entry into their field. The student will be supervised by an approved preceptor (industry professional, clinician, or researcher) for the practical application of previously studied theory. Practicum hours will vary based on the nature of the experience. Important note: Internships with athletic programs require clearance. This must be done before the internship starts. Please contact the Program Director for instructions.

Must have completed KIN 636 OR KIN 679 OR KIN 661.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 710. Master's Thesis. 1-6 Credit Hours.

The student working on his/her master's thesis enrolls for credit, in most departments not to exceed six, as determined by his/her advisor. Credit is not awarded until the thesis has been accepted.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

KIN 714. Therapeutic Interventions. 3 Credit Hours.

Students will acquire the theoretical knowledge necessary for the clinical application of therapeutic exercise, modalities, and evidenced based rehabilitation programs. Principles of therapeutic exercise, open and closed chain exercise, muscle re-education, and special therapeutic techniques such as aquatic therapy. In addition, students will apply specific physiological effects, therapeutic indications, and contraindications associated with thermal, mechanical, electromagnetic, and acoustic modalities.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 715. Evidence-Based Sports Medicine and Research Methods. 3 Credit Hours.

The student will learn the systematic approach to creating and answering clinical questions through review and application of existing research. Students will learn how to develop a relevant clinical question using a pre-defined question format, use standard criteria or developed scales to critically appraise the structure, rigor, and overall quality of research studies, and determine the effectiveness and efficacy of an athletic training intervention. Students will also learn the theoretical foundation of clinical outcomes assessment and the standard methods of outcomes assessment in athletic training clinical practice.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

KIN 716. Advanced Rehabilitation Techniques in Athletic Training. 3 Credit Hours.

This is an advanced athletic training course designed to enhance the athletic trainer's ability to plan and implement a comprehensive sports injury rehabilitation program based on the sequential events of musculoskeletal tissue healing. Discussion focuses on the development of a conceptual model for sports injury rehabilitation which incorporates rehabilitation phases, intervention goals, and progression criteria. Application of the problem-oriented approach to the management of athletic injuries is a predominant theme throughout this course

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 717. Applied Clinical Techniques in Athletic Training. 3 Credit Hours.

This clinical laboratory course focuses on athletic training skills utilized in the diagnosis and treatment of primary care of patients. Students will become proficient in utilizing diagnostic tools and tests. In addition, students will become proficient in wound care, suturing, initiating and maintaining appropriate intravenous (IV) therapies and the collecting, handling, and processing of blood specimens for analysis.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 718. Administration and Professional Development. 2 Credit Hours.

Concepts of legal liability, insurance, budget/financial management, human resources, inventory control, facilities design and maintenance will be addressed. This course will enable the student to understand reimbursement guidelines; understand medical delivery systems, health care policy, and legislation in the United States. In addition, students will learn the basics related to accounting, billing, coding, accounts payable, and risk management.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 720. Practicum in Athletic Training. 1 Credit Hour.

Clinical education and field experience in a healthcare setting. Students are assigned to a licensed health care professional who will serve as the student's preceptor. Students will learn alongside their preceptors as they are exposed to the role, and function of a health care provider while practicing clinical skills with a variety of patient populations. In addition, students will meet for scheduled in-services and clinical labs with a focus on emergency preparedness and readiness through Simulation and Interprofessional Education. Prerequisite: KIN 663 Foundations of Athletic Training

Prerequisite: KIN 663.

Components: PRA.

Grading: GRD.

Typically Offered: Fall.

KIN 721. Independent Study 1: Clinical Internship Experience. 1 Credit Hour.

This elective internship course will allow students to seek a professional Athletic Training internship in a particular area of clinical interest under the supervision of a licensed/certified health care clinician.

Components: IND.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 722. Practicum in Athletic Training 2. 2 Credit Hours.

Clinical education and field experience in a healthcare setting. Students are assigned to a licensed athletic trainer who will serve as the student's preceptor. Students will learn alongside their preceptors as they are exposed to the role and function of an athletic trainer while practicing clinical skills with a variety of patient populations. In addition, students will meet for scheduled in-services and clinical labs with a focus on utilizing Interprofessional Education (IPE) and simulation to enhance physical evaluation and assessment skills. Prerequisite: KIN 720 Practicum in Athletic Training 1

Prerequisite: KIN 720.

Components: PRA.

Grading: GRD.

Typically Offered: Spring.

KIN 723. Independent Study 2: Research Experience. 2 Credit Hours.

This elective research experience course will allow students to pursue research in an area of particular interest under the supervision of a faculty member.

Components: IND.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 724. Practicum in Athletic Training III. 3 Credit Hours.

Clinical education and field experience in a healthcare setting. Students are assigned to a licensed health care professional who will serve as the student's preceptor. Students will learn alongside their preceptors as they are exposed to the role, and function of a health care provider while practicing clinical skills with a variety of patient populations. In addition, students will meet for scheduled in-services and clinical labs with a focus on integrating athletic training knowledge and skills through Simulation and Interprofessional Education (IPE). Prerequisite: KIN 722 Practicum in Athletic Training 2

Prerequisite: KIN 722.

Components: PRA.

Grading: GRD.

Typically Offered: Fall.

KIN 725. Continuous Registration--Master's Study. 1 Credit Hour.

To establish residence for non-thesis master's students who are preparing for major examinations. Credit not granted. Regarded as full time residence.

Components: THI.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 727. M.S. Research in Residence. 1 Credit Hour.

Used to establish research in residence for the thesis for the master's degree after the student has enrolled for the permissible cumulative total in KIN 710 (usually six credits). Credit not granted. May be regarded as full time residence.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 735. Methods in Biomechanical Analysis. 3 Credit Hours.

Examination of methods of research, instrumentation, and quantitative application of kinematic and kinetic concepts in the biomechanical analysis of human movement.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 740. Neurophysiology in Exercise Science. 3 Credit Hours.

Examination of the functions of the central, peripheral, and autonomic nervous systems in regulating exercise homeostasis and the structural and functional modifications to the systems through training. NOTE: This course is a writing intensive course. This means that all examinations and papers include a critical evaluation of the student's ability to convey information using the written word.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

KIN 746. Research Methods in Kinesiology and Sport Sciences. 3 Credit Hours.

This Course reviews the approach and research methods used to evaluate quantitative research questions in the field of Kinesiology and Sport Sciences.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 755. Exercise Biochemistry. 3 Credit Hours.

This course presents an in-depth examination of the biochemical basis of exercise. Topics include carbohydrate and lipid metabolism at rest and during exercise, integration of metabolism, the use of stable isotopes in the characterization of substrate kinetics, and metabolic bases of fatigue. Both the instructor and the students will incorporate current peer-reviewed research in the field.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

KIN 763. Seminar and Special Topics in Athletic Training. 3 Credit Hours.

Scenarios and subject matter that will help facilitate the student's transition to practice will be emphasized. There will be a focus on current issues and emerging topics and technologies in the healthcare profession. Students will prepare for class discussion by reviewing assigned readings from professional journals and other pertinent sources. Class sessions will consist of lectures, laboratories, and discussion sessions. Also, career development and responsibility topics such as leaderships, entrepreneurship, ethics, patient values, diversity and cultural competency.

Components: SEM.

Grading: GRD.

Typically Offered: Spring.

KIN 764. Athletic Training Clinical Field Experience. 6 Credit Hours.

This course is an immersive clinical education experience, where Athletic Training students under the supervision of a preceptor will demonstrate the ability to integrate knowledge and skills with clinical problem-solving while assuming professional like roles in various clinical patient care settings. Students will be required to post weekly reflections in an electronic journal and to attend scheduled webinars.

Prerequisite: KIN 722.

Components: PRA.

Grading: GRD.

Typically Offered: Spring.

KIN 765. Teaching Assistant Training in Kinesiology. 2 Credit Hours.

This course involves training and teaching assistant experience under the supervision of faculty. Students will have the opportunity to assist faculty in the teaching of workshops, clinical laboratory and/or undergraduate theory courses offered in the Kinesiology department.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 766. Research in Athletic Training. 3 Credit Hours.

This course is an advanced study of a particular theme or topic in the athletic training field including a research topic, current professional issues of relevance to certified athletic trainers and other sports medicine/allied healthcare professionals.

Prerequisite: KIN 715.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 781. Issues Specific to Women's Health. 3 Credit Hours.

This course focuses upon clinical health issues relevant to women. Students will acquire a body of knowledge concerning the specific biological and physiological changes that are unique to women and impact women differently than men. In the past, research has been extensively focused upon men but that has changed in the last few decades and this course presents the latest findings on how cardiovascular disease, diabetes, and bone loss differentially impacts women. Nutritional considerations and the latest exercise information will be provided for all adverse medical conditions that impact woman disproportionately and also impact women differently than men. This includes conditions such as osteoporosis, breast cancer, obesity, and dementia. Women will learn significant issues related to women's health and be able to make more educated decisions regarding their health and treatment options.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

KIN 783. Sports Medicine for the Female Athlete. 3 Credit Hours.

This course focuses upon the physiological effects of exercise on the female athlete as it relates to her performance and health. Physiological differences between male and female will be examined as it impacts the women's performance capabilities and potential. Gender specific problems regarding the exercising female will be explored.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

KIN 784. Energetics of Obesity and Weight Management. 3 Credit Hours.

This course provides an in-depth review covering the etiology of obesity. Students will learn distinctive differences between white fat and brown fat. The course will focus on etiology of obesity including fat as an inflammatory disease, and fat as a giant endocrine gland. The health and clinical consequences of the disease, the psychological impact, and methods of evaluation will also be addressed. This includes laboratory measures of obesity, basal metabolic rate, and fat distribution. Race differences in fat distribution as it impacts subcutaneous and visceral adipose tissue distribution, and its' health implications will also be discussed. The latest dietary plans including intermittent fasting, timing of meals, assimilation of processed and unprocessed foods and changes in the hormonal milieu that impact weight gain, will be addressed. The course will cover a step-by-step approach in the recognition, management, and treatment of the overweight and obese patient

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

KIN 785. Neurological Mechanisms of Weight Regulation. 3 Credit Hours.

This course is designed to evaluate dieting, rebound effect, set point theory, brown fat, and adaptive thermogenesis, as they relate to the etiology of obesity. The course will cover a step-by-step approach in the recognition and management of the overweight patient. The course will also examine adipocyte morphology and the health implications of being overweight and obese. Students will examine the impact of both diet and exercise on long-term weight management.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

KIN 791. Practicum in Kinesiology and Sport Sciences/Master's students. 1 Credit Hour.

The course presents graduate students with the theoretical and practical tools necessary for expanding their critical thinking and argumentative skills in order to present their scientific research results in an evaluative, logical and analytical manner. The course consists of weekly presentations of related literature, results, and findings on various Master's projects.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 793. Research Colloquium.. 1-3 Credit Hours.

This course presents graduate students with the theoretical and practical tools necessary for presenting their scientific research in an organized, logical, and analytical manner.

Components: THI.

Grading: GRD.

Typically Offered: Fall & Spring.

KIN 794. Advanced Individual Study. 1-3 Credit Hours.

The Application for Admission to Individual Study Form will be required.

Components: THI.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 795. Graduate/Clinical Field Experience in Kinesiology and Sport Sciences. 1-3 Credit Hours.

Practical experience not ordinarily available through coursework sequences. Placement in a variety of settings, clinics, public and private voluntary agencies and schools. Supervised by a faculty member of the department.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 799. Special Project. 1-3 Credit Hours.

This course represents the capstone course in a student's field and should represent a culmination of all information learned in class.

Components: THI.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 800. Supervised Practicum. 1-3 Credit Hours.

Students will be engaged in supervised experiential learning designed especially for their entry into their field. The student will be supervised by an approved preceptor (industry professional, clinician, or researcher) for the practical application of previously studied theory. Practicum hours will vary based on the nature of the experience.

Components: PRA.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

KIN 820. Research in Residence. 1 Credit Hour.

Used to establish research in residence for the thesis for the master's degree after the student has enrolled for the permissible cumulative total in ESS 710 (usually six credits). Credit not granted. May be regarded as full time residence.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 830. Pre-Candidacy to Dissertation Research. 1-10 Credit Hours.

Admission to doctoral program. Requires approval of advisor and department chair.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

KIN 835. Practicum. 1-2 Credit Hours.

The course presents graduate students with the theoretical and practical tools necessary for expanding their critical thinking and argumentative skills in order to present their scientific research results in an evaluative, logical and analytical manner. The course consists of weekly presentations of related literature, results, and findings on various Doctoral projects.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

KIN 840. Post-Candidacy Dissertation Research. 1-12 Credit Hours.

For doctoral students working on their dissertations.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

KIN 850. Research in Residence. 1 Credit Hour.

Used to establish research in residence for the PH.D. Student, after the student has been enrolled for the permissible cumulative total in appropriate doctoral research. Credit not granted. May be regarded as full-time residence as determined by the Dean of the Graduate school.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.