

Kinesiology/Athletic Training, Ph.D.

COLLEGE OF PUBLIC HEALTH

Learn more about the Doctor of Philosophy in Kinesiology.

About the Program

In the research-intensive Ph.D. program in Kinesiology with a concentration in Athletic Training, students conduct original scientific inquiry and contribute new knowledge to the disciplines of athletic training and sports medicine. The program is designed for certified athletic trainers who want to use advanced biomedical research methods to evaluate accepted clinical practice and enhance the proficiency of sports injury prevention, treatment, and rehabilitation in physically active populations. Students collaborate with internationally renowned faculty members on innovative research that examines sport-related concussion and sub-concussive head impact. Many students develop their own research agendas in this area. The program's research strengths also include tissue adaptation to stress and overuse, sensorimotor control systems, and sports policy development, among other areas.

These strengths set Temple University's Athletic Training program apart:

- Our unique research-based doctoral program is one of the only programs of its kind in the nation, giving certified athletic trainers unparalleled opportunities to engage in intellectually rigorous research under the guidance and mentorship of expert faculty members.
- Flexibility in shaping one's research interests is made possible through a wide range of elective courses that integrates multiple fields of research. Faculty have expertise in athletic training, physical therapy, public health, and more.
- Preparation for a successful academic career is fostered through mastery of biostatistical and kinesiology research methods, as well as grantsmanship experience that includes identifying funding sources, preparing grant applications, and navigating the application process. While pursuing the Ph.D., students can also enroll in the Teaching in Higher Education certificate program, offered by Temple University's Center for the Advancement of Teaching.

Time Limit for Degree Completion: 7 years, although students can complete the program in 4 years

Campus Location: Main, with electives also offered at the Health Sciences Center campus

Full-Time/Part-Time Status: Full-time study is required.

Interdisciplinary Study: Interdisciplinary study is available within the Department of Kinesiology and through other departments in the University.

Ranking: While rankings of individual programs and the department are not conducted in the profession, the programs at Temple University have excellent reputations.

Areas of Specialization: This degree is offered by the Department of Kinesiology in Temple University's College of Public Health. Faculty research emphases within the department include:

- adaptation of tissues to stress and overuse;
- biomarkers associated with sub-concussive cerebrovascular injury;
- exercise addiction;
- human balance and locomotion;
- molecular and cellular mechanisms of cardiovascular adaptation to exercise;
- neural mechanisms of muscle coordination in human upper extremities;
- sensorimotor, perceptual, and psychological influences on human movement control;
- sport-related concussion and mild traumatic brain injury;
- shoulder injury research, particularly in professional baseball; and
- policy development in sport.

Job Prospects: This Ph.D. program prepares students for research and teaching careers at institutions of higher education and research, including Carnegie I institutions, as well as advanced clinical roles in athletic training and sports medicine. Under the guidance of faculty mentors, students hone a research agenda; prepare publications and present research at national and regional conferences; and develop grantsmanship expertise. These experiences position our doctoral students to be competitive candidates for academic and research careers.

Non-Matriculated Student Policy: Non-matriculated students are permitted to take up to 9 credits in the department, provided they have the requisite knowledge to be successful in the coursework.

Financing Opportunities: The Department of Kinesiology offers all accepted doctoral students a competitive level of support, including tuition, stipend, and health insurance, for four years.

Graduate assistantships are sponsored by the College of Public Health:

- Research Assistants (RAs) perform supervised research activities and work with faculty on grant proposals and ongoing research. Through these experiences, students develop both research and grant-writing competencies.
- Teaching Assistants (TAs) assist in teaching courses, including grading exams and papers or teaching lab sections. TAs learn current pedagogies that prepare them for academic teaching. They can also receive certification in higher education instruction.

Highly qualified candidates are nominated for Presidential or University fellowships.

Admission Requirements and Deadlines

Application Deadline:

Fall: March 1

All applicants to the Ph.D. in Kinesiology with a concentration in Athletic Training must apply via the Centralized Application Service for Public Health (SOPHAS). The system can be accessed at <https://sophas.liaisoncas.com/>. Applications are processed throughout the year as they are received. Admission to this Ph.D. program is a rolling process such that, beginning in the Fall, applications are reviewed and offers of admission are extended, continuing until the cohort is filled. Thus, it is in the applicant's best interest to apply early.

Letters of Reference:

Number Required: 3

From Whom: Letters should be obtained from college/university faculty or an immediate work supervisor who can provide insight into your abilities and talents, as well as comment on your aptitude for graduate study.

Coursework Required for Admission Consideration: All applicants must be certified athletic trainers via the procedures specified by the Board of Certification.

Master's Degree in Discipline/Related Discipline: Most applicants have a master's degree in biological sciences, exercise science, kinesiology, medicine, physical therapy, physiology, or a related field.

Bachelor's Degree in Discipline/Related Discipline: All applicants must have a bachelor's degree with a minimum cumulative GPA of 3.25 on a 4.0 scale.

Statement of Goals: A statement of one to two pages should be clearly written.

Standardized Test Scores:

GRE/MAT: Required. The GRE score must total a minimum of 300 combined on the verbal and quantitative sections. Official GRE scores should be sent to SOPHAS using code 0151.

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master's degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 79 (send officially to SOPHAS using the SOPHAS-specific TOEFL code 5688)
- IELTS Academic: 6.5
- PTE Academic: 53
- Duolingo: 110

Interview: An interview may be required.

Resume: Current resume required.

Writing Sample: This required paper/article should be no more than 15 pages in length. The topic should be relevant to kinesiology, but is otherwise flexible.

Advanced Standing: Students who enter the doctoral program with the master's degree may receive advanced standing toward the Ph.D. degree. The maximum number of advanced standing credits awarded is 9.

Program Requirements

General Program Requirements:

Number of Credits Required to Earn the Degree: 45

Required Courses:

Code	Title	Credit Hours
Core Courses		
EPBI 5002	Biostatistics	3
EPBI 8012	Multivariable Biostatistics	3
EPBI 8212	Grantsmanship in Health Research	3
HRPR 5001	Current and Emerging Issues in Public Health and Health Professions	0
HRPR 5999	Research Experience in Health Professions	0
KINS 8300	Seminar in Athletic Training/Sport Medicine	3
KINS 8348	Lab Tech in Ath Train	3
KINS 8349	Cadaver Anatomy	3
KINS 9901	Research Methods in Kinesiology	3
PHTH 8521		3
or PHTH 9645	Advanced Musculoskeletal Anatomy	
Electives		15
Select courses from the following to complete a minimum of 15 credits: ¹		
EPSY 5529	Tests and Measurements	
EPSY 8827	Experimental Design	
KINS 5202	Biomechanical Skeletal Tissue	
KINS 5311	Physiology of Exercise	
KINS 5312	Exercise and Nutrient Metabolism	
KINS 5313	Exercise and Aging	
KINS 8343	Orthopedics in Athletic Training/Sports Medicine	
KINS 8344	Rehabilitation Methods and Techniques for Sports-Related Injuries	
KINS 9201	Cardiovascular Exercise Physiology	
KINS 9203	Appl Ex Physio-Neuromusc	
KINS 9204	Cellular Adapt to Exer	
KINS 9401	Psychological Bases of Motor Behavior	
KINS 9402	Psychology of Human Motivation and Development	
KINS 9882	Independent Research	
MEDS 5003	Fundamentals of Biochem	
MEDS 5006	Microbio and Immunology	
MEDS 8004	Macromolecules	
PSY 8041	Factor Analysis and Scaling	
Research Courses		
KINS 9994	Preliminary Examination Preparation	1
KINS 9998	Dissertation Proposal Research	2
KINS 9999	Doctoral Dissertation in Kinesiology	3
Total Credit Hours		45

¹ Other KINS or graduate courses in other departments may be taken as electives to tailor the coursework to the interests and skills of the student. Approval from two graduate faculty members is required for the student to select an alternate elective course.

Minimum Grade to be Earned for All Required Courses: B-

Culminating Events:

Preliminary Examination:

All Ph.D. candidates in Kinesiology must complete the preliminary examination, which includes two requirements:

- successful completion of a set of four questions that examine the doctoral student's competency in her/his subdiscipline, and
- submission of a research article of publishable quality, as first author, to a refereed journal.

Note that a literature review does not fulfill the second requirement.

Proposal:

The dissertation proposal encompasses the first part of the dissertation: introduction, review of literature, and methodology. It is a substantive document that spells out clearly the rationale for the research, reviews the literature, and precisely identifies the methodology to be used in answering the research problem. The proposal is reviewed and approved by the Doctoral Advisory Committee (DAC), which is composed of three Graduate Faculty members. Two of the DAC members, including the chair, must be Graduate Faculty in the student's degree program.

Dissertation:

The dissertation represents an original research study that provides a substantive contribution to the literature and is worthy of publication. As such, it is a rigorous examination of a research problem that requires extensive investigation, using quantitative and/or qualitative methodology. The Dissertation Examining Committee (DEC) must include the chair and all members of the DAC and two additional readers, one of whom must be from outside the Department of Kinesiology and not previously involved with the dissertation writing or DAC. The defense is scheduled at the mutual convenience of the student and the members of the DEC. Notice is provided to the College of Public Health, which completes the necessary paperwork to announce the defense date, time, and location. The DEC reviews and discusses the defense. Overall evaluation of pass/fail with recommendations for improvements of the dissertation result.

Contacts

Program Web Address:

<https://www.temple.edu/academics/degree-programs/kinesiology-phd-hp-kins-phd>

Department Information:

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1800 N. Broad Street
Philadelphia, PA 19121-3302
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215-204-8707

Submission Address for Application Materials:

<https://sophas.liaisoncas.com/>

Department Contacts:

Admissions:

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Department Coordinator:

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Courses

KINS 5141. Anatomy for Orthopedic Assessment. 1 Credit Hour.

This 1 credit hour course will focus on pertinent anatomical landmark identification and palpation for clinical evaluation of athletic injuries and conditions.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5142. Foundations of Athletic Training. 4 Credit Hours.

Through lecture and laboratory exercises, the student will obtain both didactic information and practical application of athletic training skills, including basic taping and bracing techniques, acute and emergency management, stretching, and equipment fitting and removal. Additionally, legal and ethical issues will be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5143. Orthopedic Assessment I. 3 Credit Hours.

This required course will focus on the key concepts of evaluation, diagnosis, and management of lower extremity sports-related injuries. Students will be able to use an evidence-based approach to identify, explain, and assess pathologies of musculoskeletal injuries in the lower extremity and apply these concepts in real-life athletic training scenarios.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5202. Biomechanical Skeletal Tissue. 3 Credit Hours.

This course offers an in-depth examination of the structure, composition, and material behavior of the basic skeletal tissues, including bone, cartilage, tendon, ligament, and muscle. The pathomechanics of injury, adaptation to loading, and degenerative changes associated with aging are analyzed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5237. Racial Minorities and Sport. 3 Credit Hours.

This dual-level course focuses on the positions and roles of African American and other persons of color in American sport. Topics to be covered assist in consciousness raising of both white students and students of color to the unique experiences and challenges of racial minority participants in sport.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5239. Self-Development and Sport. 3 Credit Hours.

This group process experiential course focuses the student's attention on the patterns and practices of her/his own sport or exercise. Assessments of satisfaction and areas for change are followed by action plan development for future experiences.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5244. Orthopedic Assessment II. 3 Credit Hours.

This is a required three credit hour course that will focus on the key concepts of evaluation, diagnosis, and management of upper-extremity and axial skeleton sports-related injuries. Students will be able to use an evidence-based approach to identify, explain, and assess pathologies of musculoskeletal injuries in the upper extremity and axial skeleton and apply these concepts in real-life scenarios.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5143|Minimum Grade of B|May not be taken concurrently.

KINS 5245. General Medical Conditions in Athletic Training. 4 Credit Hours.

This course will focus on the key concepts of evaluation, diagnosis, and management of general medical conditions commonly seen in the athlete. Students will be able to use an evidence-based approach to identify, explain, and assess pathologies and apply these concepts in real-life scenarios.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5142|Minimum Grade of B|May not be taken concurrently.

KINS 5247. Leadership for the Entry-Level Athletic Trainer. 1 Credit Hour.

This 1 credit hour course will focus on the history of athletic training and its continued growth as a healthcare profession. Students will determine their leadership style and practice conflict resolution skills.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Sci in Athltic Train.

Repeatability: This course may not be repeated for additional credits.

KINS 5287. Practicum in Athletic Training I. 3 Credit Hours.

This course accompanies the first of four clinical experiences in the athletic training curriculum in order to further develop and enhance the practical skills and knowledge necessary for clinical practice. Students will review and demonstrate lower extremity injury evaluations, foundational athletic training skills, and emergency management techniques.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5142|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5143|Minimum Grade of B|May not be taken concurrently)

KINS 5311. Physiology of Exercise. 3 Credit Hours.

This course is a survey of the broad spectrum of exercise physiology. The physiology concepts presented are applied to research, rehabilitation, preventive medicine, and coaching. Such topics as nutrition and performance, weight control, stress testing, and ergogenic aids are discussed in detail. Basic laboratory techniques and classical experiments are demonstrated.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5312. Exercise and Nutrient Metabolism. 3 Credit Hours.

The scientific principles controlling the relationship between exercise, nutrition, and weight control are examined. Special emphasis is directed toward the practical application of these principles for the development of individualized weight control programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5313. Exercise and Aging. 3 Credit Hours.

This course offers a study of the potential influence of exercise on the aging process. The scientific principles that govern aging processes and the influences of exercise on these processes are reviewed as well as the development of exercise programs for geriatric populations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5443. Organization and Administration in Athletic Training. 3 Credit Hours.

This three-credit hour lecture/seminar course will focus on the aspects of professional management and administrative issues in athletic training, including program management, human resources, insurance, risk management, ethics, pre-participation examinations and facility design.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5247|Minimum Grade of B|May not be taken concurrently.

KINS 5444. Therapeutic Interventions in Athletic Training. 5 Credit Hours.

This lecture and laboratory course provides current evidence and best practices for the implementation of therapeutic interventions and modalities targeted for the physically active population from the time of injury to the return to participation in sports and activities. Students will gain knowledge and experience in the theory and application of therapeutic interventions throughout the injury management spectrum. Upon completion of the 5-credit course, students will be able to apply evidence-based therapeutic guidelines to create a comprehensive treatment and rehabilitation protocol.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Sci in Athltic Train.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5244|Minimum Grade of B-|May not be taken concurrently.

KINS 5445. Considerations for Healing. 4 Credit Hours.

Through lecture and laboratory exercise, the student will examine the body's response to injury and pain, within the framework of the Disablement Model. Students will explore pathology, histology, nutrition, behavioral therapies, and pharmacological interventions as they are directed through the continuum of care. Upon completion of this 4-credit course, students will be able to implement a patient-centered plan of care across a spectrum of injuries and illnesses.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5244|Minimum Grade of C|May not be taken concurrently)

AND (KINS 5245|Minimum Grade of C|May not be taken concurrently)

AND (KINS 5287|Minimum Grade of C|May not be taken concurrently)

KINS 5487. Practicum in Athletic Training II. 3 Credit Hours.

This 3-credit course is designed to accompany the second of four clinical experiences in the athletic training curriculum to further develop and enhance the practical skills and knowledge necessary for clinical practice. Students will review and demonstrate upper extremity and postural evaluations, general medical assessments, and leadership skills.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Sci in Athltic Train.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5244|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5245|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5246|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5287|Minimum Grade of B|May not be taken concurrently)

KINS 5644. Applied Research in Athletic Training. 3 Credit Hours.

This three-credit course will introduce the fundamentals of research design and interpretation, including basic statistical analysis. Students will read, summarize, and interpret current literature related to athletic training and determine how it applies to clinical practice.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5487|Minimum Grade of B|May not be taken concurrently.

KINS 5645. Board of Certification Examination Preparation. 2 Credit Hours.

This 2-credit course will focus on the directed study for the Board of Certification (BOC) examination. Through the use of self-assessments, students will identify areas of strengths and weaknesses, create tailored study plans, and complete practice examinations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5487|Minimum Grade of B|May not be taken concurrently)
AND (KINS 5441|Minimum Grade of B|May not be taken concurrently)
AND (KINS 5442|Minimum Grade of B|May not be taken concurrently)

KINS 5687. Practicum in Athletic Training III. 3 Credit Hours.

This three-credit course is designed to accompany the third of four clinical experiences in the athletic training curriculum to further develop and enhance the practical skills and knowledge necessary for clinical practice. Students will review and demonstrate therapeutic exercise and modality applications.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5487|Minimum Grade of B|May not be taken concurrently)
AND (KINS 5441|Minimum Grade of B|May not be taken concurrently)
AND (KINS 5442|Minimum Grade of B|May not be taken concurrently)

KINS 5808. Advanced Sport Concussion. 3 Credit Hours.

This online course is designed to provide students information about sport concussion. It is geared towards graduate students seeking to augment their concussion education. It is open to all students, but also serves to supplement specific student learning objectives for graduate Athletic Training Education students. This course will be cross-listed with an approved undergraduate course KINS 4808 Sport Concussion. Graduate students will receive targeted course lectures, readings, and online resources on topics such as concussion pathomechanics, pathophysiology, recognition, assessment, management, and return to play guidelines.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 5851. Current Trends in Athletic Training. 3 Credit Hours.

Through the use of current literature and content experts in the field, this three-credit course will provide advanced information regarding clinically relevant topics related to athletic training and sports medicine practice.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5443|Minimum Grade of B|May not be taken concurrently.

KINS 5852. Transition to Athletic Training Clinical Practice. 3 Credit Hours.

This three-credit course will serve as the students' capstone experience and focus on preparing students to transition from the classroom to clinical practice. Students will submit a portfolio that includes completed competencies, resume, cover letter, and professional development units.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5645|Minimum Grade of B|May not be taken concurrently.

KINS 5888. Immersive Clinical Practice in Athletic Training. 1 Credit Hour.

Immersive Clinical Practice in Athletic Training is designed to provide athletic training students with a clinical experience opportunity to further develop, enhance, and practice skills and knowledge necessary for clinical practice and the continuum of patient care. This course will be completed in the Early-Term Start period, allowing the student to be with their assigned preceptor full-time for the 2-week duration of the course. Students must complete between 75 and 100 supervised hours, record patient-encounters, create a plan of care, and complete a final reflection of their experience. Background checks, CPR certification, and medical requirements must be current.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Sci in Athlctic Train.

Repeatability: This course may be repeated for a total of 2 credit.

Pre-requisites:

(KINS 5487|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5444|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5445|Minimum Grade of B|May not be taken concurrently)

KINS 5987. Practicum in Athletic Training IV. 3 Credit Hours.

This three-credit course is designed to accompany the final of four clinical experiences in the athletic training curriculum to further develop and enhance the practical skills and knowledge necessary for clinical practice. Students will review and demonstrate organization and administration principles and applied research skills.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5443|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5644|Minimum Grade of B|May not be taken concurrently)

AND (KINS 5687|Minimum Grade of B|May not be taken concurrently)

KINS 5988. Advanced Immersive Clinical Practice in Athletic Training. 2 Credit Hours.

Advanced Immersive Clinical Practice in Athletic Training is designed to provide athletic training students with a clinical experience opportunity to further develop, enhance, and practice skills and knowledge necessary for clinical practice, the continuum of patient care, and organizational and administrative duties. This course will be 7 weeks and completed in the final semester within the MSAT program, allowing the student to be with their assigned preceptor full-time for the 7-week duration of the course. Students must complete between 250 and 300 supervised hours, record patient-encounters, create a plan of care, critique current site policy and procedures, and complete a final reflection of their experience. Background checks, CPR certification, and medical requirements must be current throughout duration.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 5687|Minimum Grade of C|May not be taken concurrently)

AND (KINS 5443|Minimum Grade of C|May not be taken concurrently)

KINS 8101. Creative Approaches to Teaching Physical Education. 3 Credit Hours.

This course is for elementary and secondary physical education teachers. It focuses on fostering creative behavior in learners; developing an understanding of creativity and the creative person; and demonstrating the links between creative learner behavior and the teaching behavior with which it is associated. Participants practice and receive feedback about their teaching behavior.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 8300. Seminar in Athletic Training/Sport Medicine. 1 to 3 Credit Hour.

This course is designed to provide the student with analytical skills and practical experiences relative to research as it applies to sports-related injuries.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 8343. Orthopedics in Athletic Training/Sports Medicine. 3 Credit Hours.

This course deals with the theories and methods of orthopedic medicine as they are specifically applied to the understanding, evaluation, treatment, and rehabilitation of sports-related injuries. Course content includes general principles related to the evaluation of orthopedic and sports injury. Current theory and research related to the assessment of athletic injuries are presented.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 8344. Rehabilitation Methods and Techniques for Sports-Related Injuries. 3 Credit Hours.

This course is designed to provide the student with both the theoretical cases and some practical experience relative to rehabilitation therapy as it applies to sports-related injuries. Topics to be covered include manual muscle testing, goniometry, theories of pain and its management, and various therapeutic exercise modalities.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 8348. Lab Tech in Ath Train. 3 Credit Hours.

This is a 3-credit course specifically designed for students currently enrolled in the graduate Athletic Training program. This course will provide students with knowledge and application of selected laboratory instrumentation utilized in the athletic training division of the Biokinetics Research Laboratory. Topics include, but are not limited to, instrumentation used in testing of the following areas: pain threshold, strength, motion analysis, electromyography, postural control, and protein assays.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 8349. Cadaver Anatomy. 3 Credit Hours.

This course is designed for students currently enrolled in the graduate Athletic Training Education program. The course will provide students with knowledge and application of gross human anatomy, injury pathomechanics, and evaluation. Topics include, but are not limited to, laboratory experiences in the following areas: skeletal, muscular, nervous, cardiovascular, and respiratory systems.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 8500. Symposium in Kinesiology. 3 Credit Hours.

This course provides an opportunity for an in-depth examination of a special topic of interest, generally in a smaller class setting.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 8601. Research Appraisal and Clinical Application. 3 Credit Hours.

This 3-credit hour online course will focus on critically reading current research related to the field of athletic training. Students will learn common research design and statistical methods, and be able to critically appraise current literature. Students will be able to identify and analyze trends in clinical practice with the goal of improving patient outcomes. This course will prepare students for their capstone experience.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Athletic Training.

Repeatability: This course may not be repeated for additional credits.

KINS 8602. Clinical Grand Rounds I: Lower Extremity. 3 Credit Hours.

This online course will consist of clinical cases from the students and guest lecturers in the medical field, including the current athletic training medical director. An evidence-based approach will be utilized to determine best practices and ways to improve patient outcomes for lower-extremity athletic injuries.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

College Restrictions: Must be enrolled in one of the following Colleges: College of Public Health.

Repeatability: This course may not be repeated for additional credits.

KINS 8603. Clinical Grand Rounds II: Upper Extremity. 3 Credit Hours.

This online course will consist of clinical cases from the students and guest lecturers in the medical field, including the current athletic training medical director. An evidence-based approach will be utilized to determine best practices and ways to improve patient outcomes for upper extremity athletic injuries.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 8602|Minimum Grade of B|May not be taken concurrently.

KINS 8604. Evidence Based Decision Making in Athletic Training. 3 Credit Hours.

This 3 credit hour online course will consist of defining evidence-based practice, including concepts of reliability, accuracy, predictive validity of clinical procedures, and outcome measures. Students will have the opportunity to apply evidence-based decisions to case-based scenarios, and critically evaluate decisions of peers. Students will be required to create an online clinical evidence-based continuing education course proposal according to the Board of Certification guidelines.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Athletic Training.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 8601|Minimum Grade of B|May not be taken concurrently.

KINS 8611. Leadership and Cultural Considerations in Athletic Training. 3 Credit Hours.

This 3 credit hour online course is an interdisciplinary course that utilizes case scenarios to discuss issues involving leadership, cultural competence, and ethical decision-making by health care team members.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9102. Measurement and Evaluation in Physical Education. 3 Credit Hours.

This course investigates psychometrics as they apply to kinesiology. Assessment's role within education is explored, and technology's impact on measurement and evaluation is examined. Psychomotor, cognitive, and affective domains serve as the basis for constructing instruments and tests.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9103. Analytic Study of Teaching. 3 Credit Hours.

This course offers systematic study of the teaching process and environments for learning in order to analyze students' own teacher behavior. Information from research on teaching in the psychomotor, cognitive, and affective domains is introduced to support these conceptual frameworks.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9104. Curriculum in Physical Education. 3 Credit Hours.

This course examines the meaning and purpose of curriculum, its components and levels, and basic curriculum writing skills. Emphasis is placed on examining the scope and sequence of various organizing centers such as sport, fitness, movement, dance, aquatics, adventure, personal protection, and social skill.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9201. Cardiovascular Exercise Physiology. 3 Credit Hours.

This is a comprehensive cardiovascular exercise physiology course that emphasizes the mechanisms of regulatory function of the cardiovascular system during acute physical activity and the mechanisms of the adaptive response to exercise training.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9203. Appl Ex Physio-Neuromusc. 3 Credit Hours.

Principles of neurophysiological regulatory mechanisms of muscle contraction are the focus of this course. Skeletal muscle physiology, including muscle fiber types, neuromuscular junction, motor unit recruitment, and fatigue are discussed. Mechanisms of adaptation in skeletal muscles and the biomedical adaptations produced by increased and decreased use are also discussed, with emphasis on cell signaling and genomics.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 5311|May not be taken concurrently.

KINS 9204. Cellular Adapt to Exer. 3 Credit Hours.

This course examines control and regulatory mechanisms at the tissue and cellular levels during exercise. Mechanisms of adaptation in cells and tissues and the biomedical adaptations produced by training are discussed, with emphasis on genomics and cell signaling.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

(KINS 4311|May not be taken concurrently

OR KINS 5311|May not be taken concurrently)

AND (KINS 9203|May not be taken concurrently)

KINS 9205. Exercise Testing and Prescription. 3 Credit Hours.

This course enhances the knowledge and skills of persons interested in preventive and rehabilitative exercise programs. Exercise in the diagnosis, prevention, and rehabilitation of coronary heart disease, as well as the techniques of exercise stress testing are studied. Emphasis is placed on the development of exercise prescriptions from graded exercise test data.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9206. Introduction to Environmental Physiology. 3 Credit Hours.

Mechanisms of physiological response of healthy person to desert, arctic, mountain, and undersea environments are explored, as are the effects of environmental stresses upon exercise performance. Principles of human thermoregulation are demonstrated in a laboratory setting.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9287. Athletic Training/Sports Medicine Practicum I. 1 to 6 Credit Hour.

This is a practicum in which the student satisfies the 200-hour requirement by serving as an athletic trainer in a NATA-approved allied-health setting such as the Temple University Sports Medicine Clinics. Students perform athletic training duties under the supervision of certified athletic trainers and orthopedic surgeons.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9288. Athletic Training/Sports Medicine Practicum II. 1 to 6 Credit Hour.

As a continuation of KINS 9287, in this practicum the student further satisfies the 200-hour requirement by serving as an athletic trainer in a NATA-approved allied health setting such as the Temple University Sports Medicine Clinics. Students perform athletic training duties under the supervision of certified athletic trainers and orthopedic surgeons.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9301. Motor Development. 3 Credit Hours.

This course is designed to study human movement across the lifespan through the review and critique of major theoretical positions and the analysis of selected movement patterns.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9302. Motor Learning. 3 Credit Hours.

This course is designed to study the acquisition and retention of motor skills as related to practice schedules, information processing, and motor control.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9311. Biomechanics: Human Movement. 3 Credit Hours.

This course offers an assessment of research in the biomechanics of human motion, including electromyography, muscle modeling, link segment modeling and analysis, and energy and power analysis. The above concepts are utilized in the assessment of both normal and atypical populations in sport and rehabilitation contexts.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9401. Psychological Bases of Motor Behavior. 3 Credit Hours.

This course focuses on the psychology of motor behavior, with particular emphasis on motor learning and motor development.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9402. Psychology of Human Motivation and Development. 3 Credit Hours.

This course focuses on the basic psychological variables that influence, and are influenced by, human movement. A diverse set of topics within exercise and sport psychology is explored.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9403. Sociology of Kinesiology. 3 Credit Hours.

This course focuses on the social structural/contextual variables that influence, and are influenced by, human movement. Among the variables examined are socioeconomic status, gender, race, ethnicity, sexual preference, dominant-subordinate perceptions, and value formation and conflict.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9404. Exercise and Mental Health. 3 Credit Hours.

This course provides the student with a background in theory, research, and applied work in the relationship between exercise and mental health.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9405. Psychosocial Interactions and Skilled Performance. 3 Credit Hours.

Research is reviewed and designed in this course, with a focus on the enhancement of performance in both competitive and expressive settings. Applied sports psychology consulting programs are reviewed and designed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9406. Psychosocial Testing in Exercise and Sport Psychology. 3 Credit Hours.

This course provides the student with a background in test and measurement approaches within exercise and sport psychology, focusing on various measurement approaches/techniques as well as specific tests and measures.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9407. Obesity and Eating Disorders. 3 Credit Hours.

This course aims to provide a comprehensive understanding of obesity and eating disorders. It focuses on kinesiology and its relation to the etiology of the disorder, its prevalence, classification, diagnosis, treatment and prevention. These issues are discussed in terms of their psychosocial, behavioral, and physiological aspects.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9601. Capstone in Athletic Training. 6 Credit Hours.

The 6 credit hour capstone project is the culminating experience for the Doctor of Athletic Training program. It is completed under the mentorship of a research committee and integrates knowledge, skills, and abilities accrued throughout the program. The project will be founded in evidence-based practice and integrate current peer-reviewed research, patient population characteristics, and interdisciplinary provider expertise. The results of this project (e.g., literature review and critically appraised topics papers) will be submitted for presentation and/or publication.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:

KINS 8343|Minimum Grade of B-|May not be taken concurrently.

KINS 9683. Mentored Research I. 3 Credit Hours.

This course exposes the Ph.D. student to the basic nature of behavioral and somatic science research. Learning experiences consist of journal article review, laboratory/field techniques, and subject or data collection exposure as directed by faculty mentors.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9783. Mentored Research II. 3 Credit Hours.

This course provides the Ph.D. student with the opportunity to be involved in research, under the direction of the faculty mentor, as the assistant project director and as the project director for pilot studies. The student gains experience in these roles with close supervision by the faculty mentor.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:

KINS 9683|Minimum Grade of B-|May not be taken concurrently.

KINS 9785. Internship in Kinesiology. 3 to 6 Credit Hours.

This course provides supervised field and/or clinical experiences in psychological aspects of sport/physical activity, and exercise science.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9882. Independent Research. 1 to 12 Credit Hour.

This course allows students to engage in independent research. Students present a proposal to the instructor, who advises them on their project. Prior to registration, students obtain a letter of agreement from the department chair indicating the number of credits involved.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9901. Research Methods in Kinesiology. 3 Credit Hours.

This course focuses on basic understanding of research methods and related techniques necessary to evaluate research literature in physical education and related fields. Attention is given to the selection of research problems.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may not be repeated for additional credits.

KINS 9994. Preliminary Examination Preparation. 1 to 3 Credit Hour.

This course is for students who have completed all coursework and have not passed the preliminary examination.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9995. Master's Research in Kinesiology. 1 to 3 Credit Hour.

This course is open to Master of Science candidates doing either the project option or the first three credits of the thesis option.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Repeatability: This course may be repeated for additional credit.

KINS 9996. Master's Thesis in Kinesiology. 1 to 3 Credit Hour.

This course is open only to Master of Science candidates completing the last three credits of the thesis option.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Education.

Repeatability: This course may be repeated for additional credit.

KINS 9998. Dissertation Proposal Research. 2 Credit Hours.

This course supports preparation of the dissertation proposal. The course is required for students who have passed the preliminary examinations for their PhD program and who have not yet defended the dissertation proposal.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:

KINS 9994|Minimum Grade of P|May not be taken concurrently.

KINS 9999. Doctoral Dissertation in Kinesiology. 1 to 9 Credit Hour.

This course is limited to candidates for the doctoral degree. This offers continuous registration during the fall and spring terms as required from after completion of the preliminary examination until the dissertation has been completed and accepted by the graduate faculty.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate.

Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy.

Student Attribute Restrictions: Must be enrolled in one of the following Student Attributes: Dissertation Writing Student.

Repeatability: This course may be repeated for additional credit.