

# Athletic Training, M.S.A.T.

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## COLLEGE OF PUBLIC HEALTH

Learn more about the Master of Science in Athletic Training.

### About the Program

The Master of Science in Athletic Training (M.S.A.T.) degree is accredited by the Commission on the Accreditation of Athletic Training and prepares students to become certified athletic trainers who are at the forefront of clinical practice and education. This degree program, first offered in Summer 2016, was designed in response to the decision by the Commission on Accreditation of Athletic Training Education (CAATE), the Board of Certification, and the National Athletic Trainers' Association to transition to an entry-level master's degree as a requirement for certification eligibility. These groups all recognize the increasing scope of practice for athletic trainers. Individuals who are already certified athletic trainers should consider Temple's Master of Science in Kinesiology with a concentration in Athletic Training.

Temple University established the professional M.S.A.T. degree as it phased out the B.S.A.T. As a leader in the education of future and current certified athletic trainers for more than 30 years, Temple secures this position by implementing a program ahead of the curve: the master's degree will not be required until 2022. Temple's geographical location, access to quality field experiences, alumni network, cutting-edge healthcare research, and dedicated faculty provide a unique and competitive educational experience.

Students graduating from the M.S.A.T. program are able to:

- clinically apply the foundational behaviors of professional practice;
- demonstrate knowledge and competency within the content areas of athletic training;
- serve as leaders and advocates to enhance clinical and patient outcomes;
- practice with cultural competence and professional integrity;
- advance the athletic training profession;
- effectively communicate with peer healthcare professionals, patients, and athletic program administrators; and
- apply evidence-based decision-making to clinical practice to increase patient outcomes and satisfaction.

**Time Limit for Degree Completion:** 5 years

**Campus Location:** Main

**Full-Time/Part-Time Status:** Students are expected to complete their two years of coursework on a full-time basis.

**Interdisciplinary Study:** Interdisciplinary study is available within the department 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.

**Accreditation:** The M.S.A.T. degree program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

**Areas of Specialization:** The Athletic Training Practice Domains, as identified by the Board of Certification, encompass five main areas:

1. Injury/illness prevention and wellness promotion
2. Examination, assessment, and diagnosis
3. Immediate and emergency care
4. Therapeutic intervention
5. Healthcare administration and professional responsibility

As a result of the uniqueness of Temple University's College of Public Health and its research areas, areas of distinctiveness also include:

- Advanced concussion education
- Evidence-based practice components

**Job Prospects:** Graduates are prepared to work as entry-level clinical certified athletic trainers in various traditional settings (e.g., high schools, universities, clinics, hospitals); to apply for advanced research-based education (e.g., Ph.D.) or clinical education (e.g., D.A.T.); or to practice in an emerging area (e.g., dance, military).

**Licensure:** Graduates of the M.S.A.T. degree program are eligible to take the Board of Certification examination to become a certified athletic trainer. For more information on the certification process, see <https://www.bocatac.org/>. For more information about state regulatory processes, see <https://members.nata.org/gov/state/regulatory-boards/map.cfm>.

**Non-Matriculated Student Policy:** Non-matriculated students are welcome to take classes in the department, assuming they have the requisite knowledge to be successful in the coursework.

**Financing Opportunities:** For information on financial aid, contact the Office of Student Financial Services at [sfs@temple.edu](mailto:sfs@temple.edu) or 215-204-2244.

## Admission Requirements and Deadlines

### Application Deadline:

*Summer II:* June 1

All applicants to the M.S.A.T. program must apply via the Athletic Training Centralized Application Service (ATCAS). The system can be accessed at <https://atcas.liasoncas.com/>.

### Letters of Reference:

*Number Required:* 2

*From Whom:* Letters of recommendation should be obtained from evaluators, typically college/university faculty or an immediate work supervisor, who can provide insight into the applicant's aptitude for graduate study. These should be submitted at <https://atcas.liasoncas.com/>.

**Coursework Required for Admission Consideration:** Required coursework includes:

- Biology
- Chemistry
- Exercise Physiology
- General or Sport Psychology
- Human Anatomy and Physiology (8 credits)
- Nutrition
- Physics
- Statistics

Prerequisites are not required to have been taken while an undergraduate. The courses may be completed at a local community college or any accredited institution of higher education. Prerequisites may be in progress at the time of the initial application, but must be completed and verified on one's ATCAS application by June 1 of the year for which application is made. Questions regarding prerequisite work should be directed to the Program Director.

**Bachelor's Degree in Discipline/Related Discipline:** All applicants must present credentials that are the equivalent of a baccalaureate degree.

**Statement of Goals:** A statement of one to two pages should be clearly written and well-thought-out. It should be submitted at <https://atcas.liasoncas.com/>.

### Standardized Test Scores:

GRE: Not required, but recommended. These scores must be sent directly to ATCAS.

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
- IELTS Academic: 6.5
- PTE Academic: 53
- Duolingo: 110

**Clearances:** The Athletic Training M.S.A.T. program requires students to complete clinical/field education experiences at facilities both on and off Temple University's campuses. These placements require students to have a physical exam, immunizations with titers, and a PPD test. Many placements also require criminal background checks, Act 33/34 clearances, and perhaps a drug screen. Students may also be required to maintain personal health insurance. The results of these requirements may limit and potentially eliminate placement options for the student, thus resulting in her/his ability to meet graduation requirements. The College cannot ensure clinical field placements if the individual fails to meet the requirements or maintain health insurance. Additionally, conviction of a misdemeanor, felony, or felonious or illegal act may prevent the student from becoming certified to practice athletic training.

**Resume:** A current resume that includes the applicant's undergraduate GPA and relevant clinical and research experiences is required to be submitted at <https://atcas.liaisoncas.com/>.

**Interview:** Selected applicants are invited to interview via video chat at a mutually convenient time for the faculty interviewer(s) and the applicant.

**Other:** Students must submit the following items in preparation for the Fall practicum courses after admission to the program but prior to August 1:

- Emergency Cardiac Care Certification
- FBI Fingerprint Check
- PA Criminal Background Check
- PA Department of Public Welfare Child Abuse Clearance
- Proof of Physical Examination, including blood titers/boosters where applicable
- PPD Skin Test for Tuberculosis Exposure

**Transfer Credit:** At the discretion of the Program Director, relevant graduate courses taken at other accredited universities may be considered for transfer credit to the student's program. The maximum number of credits a student may transfer is 6.

## Program Requirements

### General Program Requirements:

*Number of Credits Required to Earn the Degree: 53*

*Required Courses:*

Code	Title	Credit Hours
<b>College Core Course</b>		
HRPR 5001	Current and Emerging Issues in Public Health and Health Professions <sup>1</sup>	0
<b>M.S.A.T. Core Courses</b>		
KINS 5142	Foundations of Athletic Training	4
KINS 5143	Orthopedic Assessment I	3
KINS 5244	Orthopedic Assessment II	3
KINS 5245	General Medical Conditions in Athletic Training	4
KINS 5247	Leadership for the Entry-Level Athletic Trainer	1
KINS 5287	Practicum in Athletic Training I	3
KINS 5443	Organization and Administration in Athletic Training	3
KINS 5444	Therapeutic Interventions in Athletic Training	5
KINS 5445	Considerations for Healing	4
KINS 5487	Practicum in Athletic Training II	3
KINS 5644	Applied Research in Athletic Training	3
KINS 5645	Board of Certification Examination Preparation	2
KINS 5687	Practicum in Athletic Training III	2
KINS 5808	Advanced Sport Concussion	3
KINS 5851	Current Trends in Athletic Training	3
KINS 5852	Transition to Athletic Training Clinical Practice	3
KINS 5888	Immersive Clinical Practice in Athletic Training	2
KINS 5988	Advanced Immersive Clinical Practice in Athletic Training	2
Total Credit Hours		53

<sup>1</sup> This common College Core course is required of all incoming graduate students in the College of Public Health. It is available completely online and designed such that students can complete the modules at their own pace over the course of their degree program.

## Recommended Course of Study Outlined by Year and Term

Year 1		Credit Hours
Summer II		
HRPR 5001	Current and Emerging Issues in Public Health and Health Professions <sup>1</sup>	0
KINS 5142	Foundations of Athletic Training	4

KINS 5143	Orthopedic Assessment I	3
	Term Credit Hours	7
<b>Fall</b>		
KINS 5244	Orthopedic Assessment II	3
KINS 5245	General Medical Conditions in Athletic Training	4
KINS 5247	Leadership for the Entry-Level Athletic Trainer	1
KINS 5287	Practicum in Athletic Training I	3
	Term Credit Hours	11
<b>Spring</b>		
KINS 5444	Therapeutic Interventions in Athletic Training	5
KINS 5445	Considerations for Healing	4
KINS 5487	Practicum in Athletic Training II	3
	Term Credit Hours	12
<b>Year 2</b>		
<b>Fall</b>		
KINS 5888	Immersive Clinical Practice in Athletic Training <sup>2</sup>	1
KINS 5443	Organization and Administration in Athletic Training	3
KINS 5644	Applied Research in Athletic Training	3
KINS 5645	Board of Certification Examination Preparation	2
KINS 5687	Practicum in Athletic Training III	2
	Term Credit Hours	11
<b>Spring</b>		
KINS 5888	Immersive Clinical Practice in Athletic Training <sup>3</sup>	1
KINS 5988	Advanced Immersive Clinical Practice in Athletic Training <sup>4</sup>	2
KINS 5808	Advanced Sport Concussion <sup>5</sup>	3
KINS 5851	Current Trends in Athletic Training	3
KINS 5852	Transition to Athletic Training Clinical Practice	3
	Term Credit Hours	12
	Total Credit Hours:	53

- <sup>1</sup> This common College Core course is required of all incoming graduate students in the College of Public Health. It is available completely online and designed such that students can complete the modules at their own pace over the course of their degree program.
- <sup>2</sup> KINS 5888 is scheduled to be taken in August in the Fall "Early Term Start" academic period. See the official academic calendar on the Office of the University Registrar website.
- <sup>3</sup> KINS 5888 is scheduled to be taken December to January in the Spring "Early Term Start" academic period. See the official academic calendar on the Office of the University Registrar website.
- <sup>4</sup> KINS 5988 is scheduled to be taken at the start of the regular Spring term in the 7-week "7A" academic period.
- <sup>5</sup> KINS 5808 is scheduled to be taken midterm of the Spring term in the 7-week "7B" academic period. To determine the first day of class, see the official academic calendar on the Office of the University Registrar website.

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

**Culminating Events:**

*Fieldwork Practica:*

Students in the M.S.A.T. program are assigned by the program to a clinical education site and preceptor (i.e., a certified athletic trainer who has successfully completed preceptor training offered by program faculty) each Fall and Spring academic term. Affiliation agreements with over 30 clinical education sites and 60 approved clinical preceptors are in place.

## Contacts

### Program Web Address:

<https://www.temple.edu/academics/degree-programs/athletic-training-msat-hp-atht-msat>

### Department Information:

Dept. of Health and Rehabilitation Sciences

230 Pearson Hall  
1800 N. Broad Street  
Philadelphia, PA 19121-3302  
215-204-2153

## Submission Address for Application Materials:

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

## Department Contacts:

### *Admissions:*

CPH Office of Admissions  
cph@temple.edu  
215-204-5200

### *Director of Athletic Training Education:*

Jamie Mansell, Ph.D., LAT, ATC  
jmansell@temple.edu  
215-204-2153

## 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 Athltic 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.