Kinesiology, MS

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Program Overview

The Master of Science in Kinesiology (MSK) program is aimed at furthering the education and practical experiences of students in health- and human performance-related fields. The purpose of the MSK Sports Science concentration is to equip students with advanced classroom content and an immersive practical experience to prepare them for careers in the next evolution of player performance assessment and enhancement. The curriculum consists of classes that expose students to advanced laboratory measurements, promote enhancement of performance assessment skills with cutting-edge technology, and help further expert research skills. Additionally, all students in the MSK Sports Science concentration will be assigned a two-semester Practicum to serve as a Sports Scientist for a team affiliated with UAH Kinesiology. The MSK in Sports Science offers a thesis track option for students looking for advanced opportunities to further their careers. Students will work with a thesis committee to plan, execute, and defend a robust research study.

Admission Requirements

- Applicants must have earned a bachelor’s degree from a regionally accredited institution.
- Applicants must have earned a bachelor’s degree with a minimum overall grade point average (GPA) of 3.000 or a master’s or higher degree with a GPA of at least 3.000. This GPA must be documented on the official transcript of the degree-granting institution and must be the GPA that was used as the basis for granting the degree, not a GPA that includes post-degree courses.
- Applicants must have taken the GRE within the past five years and have a score submitted as part of their application.
- Applicants must send the following materials to UAH Graduate Admissions:
  - Official transcripts from all degree-granting institutions attended
  - GRE Score(s)
  - Current Curriculum Vitae/Resume
  - Two Letters of Recommendation - Letters should ideally be from a former professor or by others who can accurately address the applicant’s academic performance and/or ability to successfully complete graduate school
  - Personal Statement - Provide a brief statement (maximum one page, single-spaced) describing their:
    1. interest in pursuing graduate work at UAH (e.g., how the MSK program will benefit you; please specify your particular area(s) of research interest
    2. professional/occupational goals
    3. suitability of academic preparation for graduate study in Sports Science
    4. prior professional experience
- Once the applicant has been formally accepted to UAH, they should meet with an advisor, who will complete a Program of Study and inform the student of any prerequisites that may be required. The student must complete all undergraduate prerequisites prior to beginning any courses in the MSK program.

Program Continuation

To continue in the MSK program, students must maintain:

- a minimum 3.000 GPA in MSK coursework with no grade lower than "C". GPA reports are obtained at the end of each academic semester from the UAH Graduate School and Registrar’s Office and are used to monitor students’ performance,
- satisfactory completion of a minimum of 240 credit hours of Practicum experience as a team Sports Scientist in each of the final two semesters, and
- a passing score on a written comprehensive exam in MSK coursework and field work.

If the above requirements are not met, a Personalized Professional Development Plan (PDP) will be developed; failure to meet criteria in the PDP may result in dismissal from the MSK program.
## MS in Kinesiology, Sports Science Concentration

This program includes 37 total credit hours, as outlined below.

### Sports Science

#### Year 1

**Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>KIN 510</td>
<td>RESEARCH METHODS IN KINESIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>KIN 520</td>
<td>LABORATORY TECHNIQUES FOR SPORTS SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td>PY 611</td>
<td>STATISTICS FOR EXPERIMENTAL METHODS</td>
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**Term Semester Hours:** 10

**Spring**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>KIN 515</td>
<td>MASTER SEMINAR IN KINESIOLOGY</td>
<td>3</td>
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<tr>
<td>KIN 518</td>
<td>ADVANCED HUMAN PERFORMANCE AND TESTING</td>
<td>3</td>
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<tr>
<td>KIN 527</td>
<td>ADVANCED EXERCISE PHYSIOLOGY</td>
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**Term Semester Hours:** 9

#### Year 2

**Fall**

<table>
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<tr>
<th>Course Code</th>
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<th>Semester Hours</th>
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<tbody>
<tr>
<td>KIN 630</td>
<td>SPORTS SCIENCE PRACTICUM I</td>
<td>3</td>
</tr>
<tr>
<td>BYS 531</td>
<td>BIOLOGICAL DATA SKILLS</td>
<td>3</td>
</tr>
<tr>
<td>KIN 699</td>
<td>SPORTS SCIENCE MASTER'S THESIS (or Elective for non-thesis track)</td>
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**Term Semester Hours:** 9

**Spring**

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<tr>
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<th>Semester Hours</th>
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<tbody>
<tr>
<td>KIN 631</td>
<td>SPORTS SCIENCE PRACTICUM II</td>
<td>3</td>
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<tr>
<td>Elective: see Advisor</td>
<td></td>
<td>3</td>
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<tr>
<td>KIN 699</td>
<td>SPORTS SCIENCE MASTER'S THESIS (or Elective for non-thesis track)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Term Semester Hours:** 9

**Total Semester Hours:** 37

**KIN 510 - RESEARCH METHODS IN KINESIOLOGY**

*Semester Hours: 3*

This course establishes an understanding of key principles related to kinesiology-related research and methodology. Key principles will be to address applicable research techniques and designs while emphasizing the planning and preparation necessary for conducting and reporting kinesiological research.

**KIN 515 - MASTER SEMINAR IN KINESIOLOGY**

*Semester Hours: 3*

This course will provide a format for the further understanding of pertinent, valuable, and meaningful research in the field of kinesiology and human performance assessment. Students will also be prepared for the professional certifications associated with their field of study.

**KIN 518 - ADVANCED HUMAN PERFORMANCE AND TESTING**

*Semester Hours: 3*

This course will provide students with advanced knowledge in the field of human performance training and evaluation through classroom lectures and laboratory/field experiences. Topics include developing and testing in strength, speed, power, agility, endurance, stability, and flexibility.

**KIN 520 - LABORATORY TECHNIQUES FOR SPORTS SCIENCE**

*Semester Hours: 3*

This course expands on the prerequisite knowledge of basic biomechanics and neuromuscular control and apply it to investigate human movements and characteristics. Topics covered include: kinematics, kinetics, electromyography, isokinetics, physiological, and body composition testing.

**KIN 527 - ADVANCED EXERCISE PHYSIOLOGY**

*Semester Hours: 3*

A more in-depth review of exercise physiology, with a particular focus on musculoskeletal performance, metabolic demands, and cardiovascular function. Students should have successfully completed an undergraduate course in exercise physiology or obtain permission of the instructor prior to taking the course for credit.
KIN 540 - SCHOOL AND COMMUNITY HEALTH  
Semester Hours: 3

Obtain information and skills related to school and community health programs with an emphasis on health instruction, strategies, and resources. Survey the components of a school health program: school health services, healthful school environment, principles of physical and movement education, nutrition services, counseling and social services, parent/community involvement, health promotion for staff. Examine the core functions of public health, prevention of diseases and injuries, health needs of special populations, and functions of various organizations.

KIN 564 - HEALTH AND PE FOR THE ELEMENTARY TEACHER  
Semester Hours: 2

The purpose of this course is to help the future elementary classroom teacher learn to appreciate, plan, organize and conduct (if called upon to do so) a quality physical education program for children in grades pre-K-5. The pre-service teacher (PT) will be provided background knowledge about physical education content, skill themes and movement concepts, how to teach skill themes and movement concepts, and fitness concepts.

KIN 570 - ADAPTED PHYSICAL EDUCATION  
Semester Hours: 3

Develop knowledge of current concepts and trends in adapted physical education as well as the ability to plan and implement a physical education program designed to meet the unique needs of individuals. Students will understand how to design and implement an Individualized Educational Program for use in an activity-based setting.

KIN 619 - EXERCISE AND SPORT BIOMECHANICS  
Semester Hours: 3

This course is designed to expose students to an understanding of biomechanics in human performance. Biomechanics is the study of forces and their effects on living systems. Sport and exercise biomechanics is specifically the study of forces and their effects on humans in sport and exercise.

KIN 621 - INSTRUCTIONAL APPROACHES TO SPORT PEDAGOGY  
Semester Hours: 3

This class is designed to expand and enrich the teaching repertoire. Special emphasis will be given to how selected models of teaching can be used to achieve multiple outcomes of teaching in physical education and other contexts (e.g., physical activity programs & youth sport). Additionally, the course will increase awareness in other instructional areas related to the profession (teaching undersevered youth, youth sports programs, etc.) Prerequisite: ED 501.

KIN 630 - SPORTS SCIENCE PRACTICUM I  
Semester Hours: 3

This course is the first of a two-semester placement with a sports team/program affiliated with UAH Kinesiology. The student will operate/assist the team's Sport Scientist and report to coaches, training staff, and athletes. The course includes monthly seminars with a faculty member. Prerequisites: KIN 510, KIN 518.

KIN 631 - SPORTS SCIENCE PRACTICUM II  
Semester Hours: 3

This course is the second of a two-semester placement with a sports team/program affiliated with UAH Kinesiology. The student will operate as/assist the team's Sport Scientist and report to coaches, training staff, and athletes. The course includes monthly seminars with a faculty member. Prerequisites: KIN 510, KIN 518.

KIN 655 - MOTOR LEARNING AND DEVELOPMENT  
Semester Hours: 3

Study the principles and practices that affect the learning and development of motor skills; theories of motor learning, motor control, and development; lifespan motor development perspective related to performing motor and sport skills; and professional applications of motor learning and development in exercise science, athletic training and physical education.

KIN 662 - ELEMENTARY PHYSICAL EDUCATION METHODS  
Semester Hours: 3

Physical education teacher certification will acquire the ability to understand, recognize, analyze and demonstrate the range of teaching skills employed by successful physical educators in the preschool and elementary setting. Emphasis is placed on understanding the theoretical implications of different teaching skills and the contexts in which they are effective. Teacher candidates will design lessons that allow for maximum student participation while remaining aligned with Alabama Consent Standards. Field experience is required. Candidates will observe, participate in, and teach lessons in physical education classrooms.
KIN 665 - METHODS OF TEACHING PHYSICAL EDUCATION IN SECONDARY SCHOOLS  
Semester Hours: 3  
Physical education teacher candidates will acquire the ability to understand, recognize, analyze, and demonstrate the range of teaching skills employed by successful educators in the secondary setting. Teacher candidates will design lessons that allow for maximum student participation while remaining aligned with Alabama Consent Standards. Field Experience is required. Candidates will observe, participate in, and teach lessons in physical education classrooms.

KIN 699 - SPORTS SCIENCE MASTER'S THESIS  
Semester Hours: 3  
Thesis credit hours are required each semester in which a student is working and receiving direction on a master's thesis. Minimum of two semesters and 6 hours requires for MSK students. A maximum of 9 hours of credit is awarded upon successful completion of a master's thesis. Requires thesis advisor permission.