

KINESIOLOGY, MS

Mission

The mission of the Department of Kinesiology at Texas A&M University-Corpus Christi is to prepare qualified practitioners in athletic training, exercise science-related industries, physical education, sport management, pre-allied health disciplines, and sport-science/conditioning in the South Texas region and beyond. Faculty are committed to helping students achieve a market-ready status by implementing high-impact teaching practices, engaging in active scholarship and research, and performing service to the university, professions, and larger community.

Program Description

Program Description and Purpose

The Master of Science in Kinesiology with an emphasis in Sport and Exercise Science is designed to prepare professionals in the multi-faceted disciplines of athletic performance, strength and conditioning, sport coaching, fitness, and allied health. These disciplines include, but are not limited to, the application and in-depth study of biomechanics, sport physiology, strength and conditioning, motor performance, nutrition, assessment of sport performance, sport psychology, and leadership/management of sport. Thus a major purpose of this program is to bridge the gap between the science and application of sports performance as well as preparation for advanced research (e.g., Ph.D.). The program is internationally recognized by the National Strength and Conditioning Association (NSCA) as an Education Recognition Program (ERP) that maintains the educational guidelines required by the NSCA. The program features a vibrant community of scholars that are nationally and internationally recognized in the areas of sport and exercise science. Students have the choice of three degree options:

1. Sport and Exercise Science: Non Thesis/Research Project
2. Sport and Exercise Science: Thesis
3. Sport and Exercise Science: Strength and Conditioning

Please see the course catalog for a full description of the expectations of these options. Course delivery options include: traditional, hybrid and fully online.

Program Delivery

The Master of Science in Kinesiology is available in two delivery options:

1. Online - Courses are delivered 100% online by the nationally recognized and accredited program. All graduate faculty are fully certified online Instructors.
2. Hybrid - Courses are delivered by a combination of traditional face to face, hybrid, and online courses.

Customizing the Program

The program is specifically designed with a sport and exercise science emphasis. Program goals (Student Learning Outcomes), curriculum design and much graduate faculty research focuses on the science behind improving athletic/sport performance. However, the program offers ample flexibility for students to customize their degree to fit their specific career goals. Regardless of the thesis or non-thesis option, students have an array of elective kinesiology and non-kinesiology course options to choose from to personalize their degree plan. This may

be further augmented by internships, independent study, and research projects.

Careers

This program prepares individuals for vocations as sport scientists and strength & conditioning coaches/trainers. The degree design also contributes to the professional development of tactical strength & conditioning trainers, certified physical education teachers, sport coaches, allied health professionals, as well as managers of sport. Finally, the program prepares candidates for sport science certifications from professional organizations such as the National Strength & Conditioning Association, American College of Sports Medicine, and other professional agencies.

Impact

The emphasis of sport science in this degree program is designed to improve sport/human performance through applied research and practice.

The program features Sport Science Research Labs (Exercise Physiology; Biomechanics; Motor Learning/Development; and Athletic Training) in Island Hall. These facilities feature state-of-the-art equipment that can be utilized in class and with applicable research. Students also have opportunities to be involved in clinics, continuing education programs, and sport science activities that are facilitated by the Department of Kinesiology.

Student Learning Outcomes

Upon graduation, graduates will be able to:

1. effectively prepare for and achieve professional certification(s);
2. obtain professional employment in kinesiology related career fields;
3. enter programs of study leading to advanced degrees in related disciplines.

Academic Standards

Students pursuing a Master of Science Degree in Kinesiology must maintain the following standards:

1. A cumulative GPA of 3.0 or better.
2. Only two courses with grades of C can be applied to the degree.
3. No course with a grade below a C will be applied toward a degree.
4. All requirements, including coursework at Texas A&M University-Corpus Christi and transfer credit coursework, must be completed within seven (7) calendar years from the date of initial enrollment in coursework.

Course Sequencing

Students must take KINE 5307 Research Design in Kinesiology (3 sch), prior to KINE 5397 Graduate Research Project. Also it is recommended that KINE 5311 Statistics in Kinesiology (3 sch) be taken prior to KINE 5397 Graduate Research Project.

For Additional Information

Website:

<http://gradschool.tamucc.edu/degrees/education/kinesiology.html>

Campus Address:

Island Hall, Suite 351

Phone (361) 825-6072

Mailing Address:

Graduate Program Coordinator
Department of Kinesiology
Texas A&M University—Corpus Christi
6300 Ocean Drive, Unit 5820
Corpus Christi, TX 78412-5820

Admission Requirements

Students are eligible to pursue graduate-level course work in Kinesiology if they meet the University and COEHD graduate admission requirements as specified in the Graduate Policies and Procedures (<http://catalog.tamucc.edu/graduate/education-human-development/>) section of this catalog. Additional kinesiology requirements and restrictions are listed below:

1. Demonstrate at least a 3.0 Overall Cumulative undergraduate GPA at the time of application. Applicants should be prepared to submit transcripts for all universities or colleges attended along with their application.
2. If an applicant's GPA is between 2.50-2.99 in their last 60 hours of undergraduate work, they may be considered for admission under admitted under "conditional" status. In such cases, the student must earn a minimum GPA of 3.0 at the completion of their first nine hours of KINE graduate courses.
3. Applicants whose undergraduate major or minor is not Kinesiology and/or do not have equivalent undergraduate coursework are encouraged to take undergraduate prerequisite courses for KINE 5309 Scientific Foundations of Strength and Conditioning (Anatomy and Physiology, and KINE 3312 Exercise Physiology or equivalent), KINE 5311 Statistics in Kinesiology, (KINE 4311 Measurement and Evaluation or equivalent), KINE 5312 Sport Physiology, (KINE 3312 Exercise Physiology or equivalent), and KINE 5327 Sport Biomechanics, (KINE 4327 Biomechanics or equivalent).

The kinesiology graduate program committee evaluates all applications and makes admission decisions.

Transfer of Graduate Credits

No more than twelve hours of graduate level study may be transferred from another institution to a student's degree plan. These hours must be from accredited institutions of higher education and recommended by the Kinesiology program graduate committee. No course with a grade of less than 'B' will be accepted as transfer credit.

Program Requirements

Option I-Sport and Exercise Science: Non-Thesis/Graduate Project

Code	Title	Hours
Core Courses		
KINE 5307	Research Design in Kinesiology *	3
KINE 5309	Scientific Foundations of Strength and Conditioning *	3
KINE 5311	Statistics in Kinesiology *	3
KINE 5312	Sport Physiology *	3
KINE 5327	Sport Biomechanics *	3
Required Courses		

Select at least three of the following: (additional courses can be utilized as electives below) 9

KINE 5306	Sport Nutrition *	
KINE 5308	Leadership in Kinesiology	
KINE 5313	Athletic Testing	
KINE 5314	Applied Principles of Strength and Conditioning *	
KINE 5325	Program Design for Resistance Training *	
KINE 5338	Motor Development in Sport *	
KINE 5340	Sport Psychology *	
KINE 5394	Professional Field Experience I *	
KINE 5690	Professional Seminar	

Applied Electives

Graduate-level courses to be selected with permission of faculty advisor. Choices may include, but are not limited to the Kinesiology courses listed above. 9

Capstone Experience

KINE 5397	Graduate Research Project in Kinesiology *	3
Total Hours		36

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Online offering

Capstone Experience - Graduate Research Project in Kinesiology

The research project option is designed for students that want to gain more knowledge about a specific topic area through the scientific process that goes well beyond what they can achieve through an academic course. The research project is a less intense version of the thesis and more of a pilot study. The project should be completed in one semester with the possibility of more time depending upon the student's topic and design. This is an involved process and the final product includes:

1. Journal Abstract;
2. Journal Manuscript (choice of journal is decided by project chair);
3. Poster Presentation; and
4. Power Point Presentation (Defense).

Option II-Sport and Exercise Science: Thesis Option

Thesis option requires departmental approval.

Code	Title	Hours
Core Courses		
KINE 5307	Research Design in Kinesiology *	3
KINE 5309	Scientific Foundations of Strength and Conditioning *	3
KINE 5311	Statistics in Kinesiology *	3
KINE 5312	Sport Physiology *	3
KINE 5327	Sport Biomechanics *	3
Required Courses		
Select at least three of the following: (additional courses can be utilized as electives below) 9		
KINE 5306	Sport Nutrition *	
KINE 5308	Leadership in Kinesiology *	
KINE 5313	Athletic Testing *	
KINE 5314	Applied Principles of Strength and Conditioning *	
KINE 5325	Program Design for Resistance Training *	
KINE 5338	Motor Development in Sport *	

KINE 5340	Sport Psychology *	
KINE 5394	Professional Field Experience I *	
KINE 5690	Professional Seminar	

Applied Electives

Graduate-level courses to be selected with permission of faculty advisor. Choices may include, but are not limited to the Kinesiology courses listed above. 6

Capstone Experience

KINE 5698	Thesis in Progress	6
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Total Hours 36

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Online offering

Capstone Experience - Thesis in Progress

The thesis option is designed for students that want to gain extensive experience in research and/or greater knowledge about a specific topic area. It is also designed for those that anticipate more advanced research (e.g., Ph.D.).

The thesis option is not allowed for all students. Interested students must apply for the thesis option after the successful completion of KINE 5307 Research Design in Kinesiology (3 sch)*. Students are required to prepare a proposal for their thesis and defend that proposal for the graduate committee. If accepted the student may proceed with the thesis option. Students whose proposal is not accepted must pursue the Graduate Research Project option.

The thesis will require a minimum of two semesters of work and possibly more depending upon the student's topic and design. This is a very involved process and though the product is the same as in the Research Project, the rigor and expectation is much higher, thus it is six semester hours of credit. The final product includes:

1. Journal Abstract;
2. Journal Manuscript (choice of journal is decided by thesis chair);
3. Poster Presentation; and
4. Power Point Presentation (Defense).

Option III-Sport and Exercise Science: Strength and Conditioning

Code	Title	Hours
Core Courses		
KINE 5307	Research Design in Kinesiology *	3
KINE 5309	Scientific Foundations of Strength and Conditioning *	3
KINE 5311	Statistics in Kinesiology *	3
KINE 5312	Sport Physiology *	3
KINE 5327	Sport Biomechanics *	3
Required Courses		
KINE 5306	Sport Nutrition *	3
KINE 5313	Athletic Testing *	3
KINE 5314	Applied Principles of Strength and Conditioning *	3
KINE 5325	Program Design for Resistance Training *	3
KINE 5340	Sport Psychology *	3
KINE 5394	Professional Field Experience I *	3
KINE 5395	Professional Field Experience II *	3
Capstone Experience		

Comprehensive Final Exam

Total Hours 36

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Online offering

Capstone Experience-Comprehensive Final Exam

The capstone experience for Option III - Sport and Exercise Science: Strength and Conditioning is a comprehensive final designed to test the competencies required to pass the Certified Strength and Conditioning Specialist (CSCS) exam offered by the National Strength and Conditioning Association (NSCA). The exam contains two sections: scientific foundations and practical/applied.

Courses**KINE 5306 Sport Nutrition****3 Semester Credit Hours (3 Lecture Hours)**

This course is designed to provide scientific evidence for the use of nutrient ingestion to enhance sport performance and maintain optimal health. Special emphasis will be placed on the chemical and biological changes caused by the ingestion of specific nutrients. In this course the student will learn to utilize current nutrition research to enhance the athlete's energy systems within various categories of sport.

KINE 5307 Research Design in Kinesiology**3 Semester Credit Hours (3 Lecture Hours)**

The application of fundamental research methods to the design and development of a research proposal in kinesiology.

KINE 5308 Leadership in Kinesiology**3 Semester Credit Hours (3 Lecture Hours)**

This course assists students in identifying and defining leadership in formal and non-formal kinesiology settings. The theoretical foundations interweaves: (a) formation of self-identification and self-awareness as a leader, (b) development of applied knowledge and skills, and (c) real-world application of effectively functioning as both a follower and a leader, thus developing a more complete and holistic leadership framework.

KINE 5309 Scientific Foundations of Strength and Conditioning**3 Semester Credit Hours (3 Lecture Hours)**

This course is designed to examine the acute and chronic adaptations to anaerobic and aerobic training programs, as well as the bioenergetics of exercise and training. KINE 2325 or equivalent approved by KINE Graduate Coordinator.

Prerequisite: KINE 2325.

KINE 5311 Statistics in Kinesiology**3 Semester Credit Hours (3 Lecture Hours)**

A study of basic statistical concepts and their application to research problems in kinesiology. Topics include issues related to descriptive and inferential statistics. Recommended

Prerequisite: KINE 4311.

KINE 5312 Sport Physiology**3 Semester Credit Hours (3 Lecture Hours)**

This course expands basic undergraduate exercise physiology principles and focuses on the role of exercise physiology in sports performance, applied and research settings. Recommended

KINE 5313 Athletic Testing**3 Semester Credit Hours (3 Lecture Hours)**

An advanced assessment course designed to provide techniques for physiological, athletic, and sport-specific tests associated with athletic performance. Test selection, test administration, data analysis, and appropriate evaluation techniques will be presented.

KINE 5314 Applied Principles of Strength and Conditioning**3 Semester Credit Hours (3 Lecture Hours)**

The purpose of this course is to provide theoretical and practical knowledge of the physiological, biomechanical, and administrative aspects of designing and supervising strength and conditioning programs for various populations.

KINE 5325 Program Design for Resistance Training**3 Semester Credit Hours (3 Lecture Hours)**

This course presents information on the process of designing scientifically based resistance training programs, modifying and adapting programs to meet the needs of special populations, and understanding how designing programs works in the real world.

KINE 5327 Sport Biomechanics**3 Semester Credit Hours (3 Lecture Hours)**

This course provides an exploration of movement kinetics and kinematics through the framework of sports, physical activity, and associated injury mechanisms. Further emphases will be on identifying viable research questions and appropriate methods (including instrumentation) to pursue those questions. Recommended

KINE 5338 Motor Development in Sport**3 Semester Credit Hours (3 Lecture Hours)**

This course address the theory and application of human motor development as it relates to the acquisition of motor skills, with a focus on sport performance. The course emphasizes how professionals in the field of sport science should utilize this understanding to serve various client populations throughout the lifespan.

KINE 5340 Sport Psychology**3 Semester Credit Hours (3 Lecture Hours)**

A study of the theory and application of psychology as it applies to human behavior in sport and physical activity.

KINE 5394 Professional Field Experience I**3 Semester Credit Hours**

A graduate-level field-based experience to provide the student the opportunity to apply knowledge and theory related to exercise and sport science. This course is an elective course and listed in the Supplemental Course section of the degree plan. This course may also be taken at any time during the student's degree with approval of their faculty mentor.

KINE 5395 Professional Field Experience II**3 Semester Credit Hours**

A graduate-level field-based experience specific to the field of strength and conditioning. This experience provides the student the opportunity to apply knowledge and theory related to sport and exercise science as well as prepare the student for professional certifications required for hiring.

KINE 5397 Graduate Research Project in Kinesiology**1-3 Semester Credit Hours (1-3 Lecture Hours)**

The research project is an alternative to the thesis and three semester hours of credit. The project should be completed in one semester of work with the possibility of more time depending upon the student's topic and design. This is an involved process and the final product includes: 1) Journal Abstract; 2) Journal Manuscript (choice of journal is decided by project chair); 3) Poster Presentation; and 4) Power Point Presentation (Defense). Unlike the thesis, all students that are fully accepted to the program automatically are eligible for the research project.

Prerequisite: KINE 5307 and 5311.

KINE 5690 Professional Seminar**1-6 Semester Credit Hours (1-6 Lecture Hours)**

PROFESSIONAL SEMINAR Contemporary issues in Kinesiology: topics vary with professional identification of participants.

KINE 5696 Directed individual Study**1-6 Semester Credit Hours**

Thesis in progress requires departmental approval. Investigative study on selected problems by students with particular needs. May be repeated when topics vary.

KINE 5698 Thesis in Progress**3-6 Semester Credit Hours (3-6 Lecture Hours)**

Students are required to successfully complete a thesis under the direction and supervision of their thesis chair and committee members. The thesis will require a minimum of two semesters of work and possibly more depending upon their topic and design, thus students will be allowed to register for three hours each semester. The thesis option is designed for students that want to gain extensive experience in research and/or greater knowledge about a specific topic area. It is also designed for those that anticipate more advanced research (e.g., Ph.D.). Upon completion of their work there is a thesis defense. The final product includes: 1) Journal Abstract; 2) Journal Manuscript (choice of journal is decided by thesis chair); 3) Poster Presentation; and 4) Power Point Presentation (Defense).

Prerequisite: KINE 5307 and 5311.