

February 2020

Texas A&M University

Department of Health and Kinesiology

**MASTER OF SCIENCE IN KINESIOLOGY EMPHASIS IN
EXERCISE PHYSIOLOGY**

The M.S. in Kinesiology with an emphasis in **Exercise Physiology** provides advanced training in the physiological responses to acute exercise and the adaptations that occur with training. It is important to note that this is a different option from those in Clinical Exercise Physiology and Sports Physiology.

NON-THESIS OPTION

KINE 601	Reading Research Publications in Kinesiology	3
KINE 637	Exercise Physiology I	3
KINE 638	Exercise Physiology II	3
KINE 647	Instrumentation and Techniques in Exercise Physiol I	2
KINE 648	Instrumentation and Techniques in Exercise Physiol II	2
KINE 681	Seminar (2 semesters)	2
STAT 651	Statistics in Research I	3
-or-		
KINE 690	Theory of Kinesiology Research	3
Electives	Advisor Directed Electives	3-12

TOTAL 36 SCH

THESIS OPTION

KINE 601	Reading Research Publications in Kinesiology	3
KINE 637	Exercise Physiology I	3
KINE 638	Exercise Physiology II	3
KINE 647	Instrumentation and Techniques in Exercise Physiol I	2
KINE 648	Instrumentation and Techniques in Exercise Physiol II	2
KINE 681	Seminar	1
STAT 651	Statistics in Research I	3
-or-		
KINE 690	Theory of Kinesiology Research	3
KINE 691	Research	1-23
Electives	Advisor Directed Electives	3-12

TOTAL**32 SCH****ADVISOR-DIRECTED ELECTIVE CONSIDERATIONS¹**

BICH	601	Fundamentals of Biochemistry I	3
BICH	602	Fundamentals of Biochemistry II	3
FSTC	607	Physiology and Biochemistry of Muscle as Food	3
KINE	606	Motor Neuroscience I	3
KINE	626	Exercise for Clinical Populations	3
KINE	630	Periodized Models	3
KINE	631	Specialized Strength & Conditioning Techniques	3
KINE	640	Motor Neuroscience II	3
KINE	641	Motor Neuroscience: Development Issues	3
KINE	649	Applied Exercise Physiology	
KINE	651	Introduction to Human Clinical Research	3
KINE	689	Special Topics in Applied Exercise Physiology	3
NUTR	301	Nutrition through Life	3
NUTR	405	Nutritional Treatment of Disease	3
NUTR	613	Protein Metabolism	3
NUTR	617	Experimental Techniques in Meat Science	3
NUTR	618	Lipids and Lipid Metabolism	3
NUTR	630	Nutrition in Disease	3
NUTR	641	Nutritional Biochemistry I (fall only)	3
NUTR	642	Nutritional Biochemistry II	3
VTPP	605	Systemic Veterinary Physiology I (fall only)	5
VTPP	606	Systemic Veterinary Physiology II (spring only)	5

REQUIRED UNDERGRADUATE COMPETENCIES:

Courses completed at Texas A&M University or their equivalents taken from another accredited undergraduate institution as verified by transcript. Courses taken on-line or at distance will not be accepted for laboratory-enhanced courses.

BIOL	319 & 320	Human Anatomy and Physiology I & II
CHEM	119 & 120	Fundamentals of Chemistry I & II with laboratories
KINE	433	Physiology of Exercise
MATH	142	Business Calculus or equivalent
PHYS	201	College Physics
	<u>or</u>	
KINE	426	Exercise Biomechanics

¹ Course electives must be chosen with prior advisor approval before the student enrolls in the course or includes it on their degree plan. Other courses not on this list may be chosen with prior advisor approval.

² KINE 684 - Professional Internship may be chosen by Thesis students as an elective, but the course hours cannot count toward the degree plan minimal credit hour requirements. Up to four credit hours of KINE 684 - Professional Internship credits can be used by Non-Thesis students to count toward the minimal credit hours required for the degree.