

**CALIFORNIA STATE UNIVERSITY, FRESNO**  
**DEPARTMENT OF KINESIOLOGY**

<b>MASTER OF ARTS DEGREE IN KINESIOLOGY</b> <b>EXERCISE SCIENCE OPTION</b>
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<b>COURSES</b>	<b>UNITS</b>
<b>I. <u>Core Courses</u></b> <i>(Required of all Kinesiology Graduate Students)</i>	<b>6</b>
KINES 230 Statistical Inference in Kinesiology	3
KINES 231 Research Methods in Kinesiology	3
<b>II. <u>Required Courses within Program</u></b> <i>(Select 5 or more from the following:)</i>	<b>15-21</b>
KINES 222 Biomechanics	3
KINES 233 Advanced Exercise Physiology	3
KINES 235 Exercise Physiology: Instrumentation & Technology	3
KINES 237 Design & Implementation of Resistive Training Programs	3
KINES 238 Exercise Testing, ECG, and Prescription	3
KINES 265 Psychobiology of Sport & Exercise	3
KINES 285 Internship in Kinesiology and Sport	3
<b>III. <u>Electives within Program</u></b> <i>(Including any not selected from Area II.)</i>	<b>3 - 6</b>
Any KINES 200-level course or any approved outside area course	3
<b>IV. <u>Culminating Experience</u></b>	<b>0-6</b>
KINES 299 Thesis**	6
Comprehensive Exam** (Must be accompanied by KINES 285)	
Kines 298 Project	6
<b><u>TOTAL NUMBER OF UNITS</u></b>	<b>30</b>

**Note:**

\*\*With advisement, Student may select either of the Culminating Experiences

**Approved Electives in Outside Areas:** (Consult the Catalog for Prerequisites)

Biology: 121 Electron Microscopy	Chem: 128 Organic Chemistry
Bio Sc: 140 Genetics and Cellular Biology	150 General Biochemistry
180 Evolution	153 Physiolog. Chemistry and Metab.
Genet: 120 Intro. to Genetics	PhTh: 125 Applied Human Anatomy
122 Fund. of Human Genetics	126 Applied Pathophysiology
PhyAn: 130 Neuroanatomy	127 Neuromusc. Processes in Human Devel. & Aging
140 Neurophysiology	Nutr: 153 Advanced Nutrition
151 Comparative Animal Physiology	221T Physiological Nutrition
164 Integrative Human Physiology	
165 Endocrinology	<i>For students whose degree is other than Kinesiology or Physical Therapy, they may elect KINES 138, 139, or 148</i>
172 Pathophysiology	

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**PREREQUISITES FOR STUDENTS WITH UNDERGRADUATE DEGREES IN DISCIPLINES  
OTHER THAN PHYSICAL EDUCATION OR KINESIOLOGY  
OR A NON-EXERCISE SCIENCE UNDERGRADUATE DEGREE**

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With advisement, the student may be required to complete selected coursework in the following areas:

*Previous coursework and experiences are taken into consideration when establishing the required foundational coursework.*

KINES 35 or PhyAn 33 or (64 and 65)*	Human Anatomy and Physiology	<b>3-8</b> units
Nutr 147	Nutrition and the Athlete <b>OR</b>	<b>3</b> units
KINES 121	Body Composition: Theory, Principles & Management	<b>3</b> units
KINES 137*	Structural Biomechanics <b>OR</b>	<b>3</b> units
KINES 116*	Applied Biomechanics	<b>3</b> units
KINES 118*	Applied Exercise Physiology	<b>3</b> units
KINES 163	Fitness and Wellness <b>OR</b>	<b>3</b> units
KINES 165	Performance Related Fitness	<b>3</b> units

\*These courses must be completed *before* enrolling in graduate exercise science courses; however, graduate core coursework (KINES 230, and 231) may be taken before completion of these prerequisites. Success in this program requires a sound background in biological and physical sciences; students who are unsure of their preparation in these areas should seek advising regarding remedial work.