



## MASTER OF SCIENCE IN KINESIOLOGY

### **Clinical Exercise Science Track Non-Thesis (36 hours) & Thesis Options (38 hours)**

Preventive practices are gaining favor over the traditional treatment approach to health care in the United States. Preventive strategies not only improve overall health and quality of life but are much more cost effective than the treatment required for diseases associated with a sedentary lifestyle. With the growing awareness of the role that exercise plays not only in improving athletic performance, but in promoting wellness and preventing disease, the role of the exercise specialist or personal trainer will rise in prominence as a career of choice. The masters in clinical exercise science is designed to provide students with an in-depth science based understanding of the human body, its adaptations to physical activity, and how exercise/physical activity interventions can be prescribed to decrease risk for diseases related to sedentary living.

#### Required Courses

Course #	Course Title	Hours	Semester	Grade	Notes
HPER-K530	Mechanical Analysis of Human Performance	3	Spring/every other year	_____	_____
HPER-K535	Physiological Basis of Human Performance	3	Fall/every other year	_____	_____
HPER-K542	Neuromuscular Control of Human Movement	3	Spring/every other year	_____	_____
HPER-K562	Exercise in Health and Disease I	3	Spring/every other year	_____	_____
HPER-T590	Introduction to Research in Human Performance	3	Fall	_____	_____
HPER-T591 or G651*	Interpretation of Data in Human Performance Intro to Biostatistics I	3	Fall, Spring, Summer	_____	_____

#### Electives Courses (Non-thesis = 18 hrs; Thesis = 9 hours; GA 12 hrs + 6 hrs of K601)

Course#	Course Title	Hours	Semester	Grade	Notes
HPER-K532	Clinical Biomechanics	3	Spring/every other year	_____	_____
HPER-K500	Muscle Physiology	3	Fall/every other year	_____	_____
GRAD-G819	Basic Bone Biology	3	Fall/every other year	_____	_____
HPER-K563	Cardiac Assessment in Exercise Testing	2	To be determined	_____	_____
HPER-K564	Exercise in Health and Disease II	3	To be determined	_____	_____
HPER-K500	Special Variable Topics (EMG, Gait Analysis, Cardiac Testing)	3	To be determined	_____	_____
ANAT D850	Gross Anatomy	5	Fall	_____	_____
PHSL-F503	Human Physiology	4	Fall/Spring	_____	_____
PHSL-F708	Cardiac & Coronary Physiology of Exercise	1	Fall/Spring	_____	_____
HPER-K553	Physical Activity & Disease	3	Fall	_____	_____
SHRS W661	Theories of Health Promotion and Disease Prevention	3	Fall	_____	_____
HPER K533	Advanced Theories of High Level Performance	3	Summer	_____	_____
HPER-K 552	Problems in Adapted Physical Education	3	Spring	_____	_____
SHRS-N 500	Nutrition 1	3	Spring	_____	_____
HPER-K525	Sport Psychology	3	Fall	_____	_____
HPER-K602	Independent Research	3	Fall, Spring, Summer	_____	_____
HPER-K576	Measurement & Evaluation in Physical Education	3	To be determined	_____	_____
HPER-K601	Readings in Physical Education	3	Fall, Spring, Summer	_____	_____
HPER-K560	Corporate Fitness & Wellness	3	To be determined	_____	_____
HPER-K545	Childhood Motor Development	3	To be determined	_____	_____
HPER-K541	Nature of Motor Skills	3	Spring	_____	_____

#### Research Courses For Thesis Students (11 hours)

Course#	Course Title	Hours	Semester	Grade	Notes
HPER-T592 or G652*	Statistical Techniques of Research in Health, Physical Education, and Recreation Intro to Biostatistics II	3	Fall, Spring	_____	_____
HPER-K602*	Thesis Option-Independent Research Hours	5	Fall, Spring, Summer	_____	_____
HPER-K602	Independent Research	3	Fall, Spring, Summer	_____	_____
N802	Techniques of Effective Grant Writing	3	Fall	_____	_____
RAD-G 504	Intro to Research Ethics	2-3	Fall	_____	_____

\*Required Course