

# EXERCISE AND SPORT SCIENCES, HUMAN PERFORMANCE - M.S.

## Exercise and Sport Sciences – Master of Science Degree, concentration in Human Performance

The Master of Science degree in Exercise and Sport Sciences with a concentration in Human Performance provides a multidisciplinary approach to the study of exercise and sport science. Foundational classes in biomechanics, exercise physiology, motor behavior, and sport psychology are integrated with experiences designed to develop students' ability to work with data and use evidence to make decisions and inform practice. Coursework in strength and conditioning and special populations allow students to enhance their applied knowledge across varied populations such as collegiate athletes and people with disabilities. The human performance concentration aims to develop a well-rounded exercise and sport scientist with knowledge, skills, and abilities to work in applied fields such as strength and conditioning, exercise prescription, and clinical research, or to pursue advanced study. The human performance concentration can be completed with a thesis or without a thesis.

**Thesis Option.** The thesis option is 30 credits which includes a 6-credit thesis—an independent research project under supervision of Exercise and Sport Science faculty. A thesis allows students to work closely with a faculty member to advance their knowledge in a specialized area. Both theoretical and applied research are encouraged. Completing a thesis is also an important first step towards advanced study in exercise and sport sciences such as in a Ph.D. program. The completed thesis must receive the approval of the thesis committee, the graduate program chair, and the dean of Health Sciences and Human Performance.

**Non-Thesis Option.** The non-thesis option is 36 credits which includes a 3-credit capstone experience for which students provide scientific support services to a client / athlete working under the supervision of Exercise and Sport Science faculty. Students conduct a comprehensive needs analysis and create an evidence-based intervention that addresses the holistic needs of their client / athlete. The capstone experience requires an oral defense which serves as the comprehensive exam for the non-thesis option. The non-thesis option is designed to be completed in 16 months and is ideal for students aiming to enhance their applied experiences in exercise and sport sciences services and careers.

### Prerequisites

The prerequisites for the human performance concentration are a course each in anatomy and physiology, biomechanics or kinesiology with a laboratory experience, exercise physiology with a laboratory experience, a course in psychology, and statistics or tests and measurements.

## Summary

Code	Title	Credits
	Human Performance Major Requirements	18
	Thesis or Non Thesis	12 or 18
	<b>Total Credits</b>	<b>30 or 36</b>

## Major Requirements

Code	Title	Credits
<b>Required Courses</b>		
ESSG 51200	Theoretical Perspectives of Mental Performance in Sport and Exercise	3
ESSG 52000	Human Movement Biomechanics of Sport and Exercise	3
ESSG 54300	Tests and Measurement and Analytics in Sport and Exercise	3
ESSG 54000	Physiological Mechanisms of Exercise	3
ESSG 60500	The Development of Expertise in Sport and Exercise	3
ESSG 61000	Research and Statistics in Exercise and Sport Sciences I	3
ESSG 64000	Seminar <sup>1</sup>	0
	<b>Total Credits</b>	<b>18</b>

<sup>1</sup> Taken for 0 credits in both Fall and Spring semesters of the first year

## Thesis Option Requirements

Code	Title	Credits
<b>Thesis Option</b>		
ESSG 61100	Research and Statistics in Exercise and Sport Sciences II	3
ESSG 62000	Thesis I	3
ESSG 62100	Thesis II	3
ESSG XXXXX Electives		3
	<b>Total Credits</b>	<b>12</b>

## Non-Thesis Option Requirements

Code	Title	Credits
<b>Non-Thesis Option</b>		
ESSG 53500	Special Populations & Exercise	3
ESSG 53800	Strength and Conditioning: Current Concepts and Applications	3
ESSG 61200	Leadership in Exercise and Sport	3
ESSG 62500	Applied Capstone in Exercise and Sport Science	3
ESSG XXXXX Electives		6
	<b>Total Credits</b>	<b>18</b>