×Department of Kinesiology and Applied Physiology

Degree Type:\* 

Exercise Science - Motor Control Concentration (MS)

Provide a brief summary of the proposed program changes and describe the rationale for the change(s):

The main revision is to add a non-thesis option to the MS in Exercise Science Program.  The rationale for the modification is the changing profile of the enrolled students in the program.  Historically, the M.S. in Exercise Science students transitioned to academic doctoral programs. However, recently many of the students in the M.S. in Exercise Science program transition to clinical doctoral programs (e.g., Physical Therapy, Physician Assistant, and Medical School) which do not require a thesis for admission.  Therefore, the non-thesis option provides additional flexibility for program faculty in developing a graduate experience consistent with the student’s professional goals.  In the process of this revision, we are also updating details in the program policy statement to match the current university requirements for admission (e.g. test scores).

Concentration: Motor Control

Motor control is an interdisciplinary science that focuses on neural, physical, and behavioral aspects of the development and regulation of human movement. Emphasis is placed on changes that occur across the lifespan or due to pathology, and adaptations that occur in response to motor learning or exercise training. Students in the MS program in Motor Control are required to conduct research and complete a thesis or faculty approved research project.

Credit Requirements:

Credits within Exercise Science: 15 credits

Credits in Cognate Areas: 9-12 credits

Research or Thesis: 3-6 credits

Total number of required credits: 30 credits

A. Courses Required Within Exercise Science

KAAP 601 Research Methods (3cr.)

KAAP 602 Data Analysis and Interpretation in Health Sciences (3cr.)

KAAP 607 Motor Learning and Control (3cr.)

KAAP 651 Neurophysiological Basis of Human Movement (3cr.)

KAAP 808 Seminar in Motor Behavior (3cr.)

Total Credits from Area A - 15 credits

B. A minimum of 3 courses from the following:

KAAP 615 Advanced Mammalian Physiology (4cr.)

KAAP 616 Advanced Mammalian Physiology II (4cr.)

KAAP 650 Life Span Motor Development (3cr.)

KAAP 666 Special Problem (1 to 12cr.)

KAAP 617 Introduction to Laboratory Instruments (3cr.)

KAAP 627 Biomechanical Methods (3cr.)

STAT 615 Design and Analysis of Experiments (3cr.)

STAT 617 Multivariate Methods (3cr.)

EDUC 862 Design and Analysis of Experiments (3cr.)

EDUC 823 Learning and Development (3cr.)

PSYC 612 Human Psychophysiology (3cr.)

PSYC 626 Advanced Neuroanatomy (3cr.)

Total Credits from Area B: 9 - 12 credits

C. A Minimum of 3 Credits from the following list:

KAAP 869 Master's Thesis (1 to 6cr.)

KAAP 868 Research (1 to 12cr.)

Total Credits from Area C: 3- 6 credits

Students completing a Thesis will register for 6 credits of KAAP 869.  Students not completing a Thesis will register for 3 - 6 credits of KAAP 868.

EDUC - 823 - Learning and Development (3cr.)

EDUC - 862 - Design and Analysis of Experiments (3cr.)

KAAP - 601 - Research Methods (3cr.)

KAAP - 602 - Data Analysis and Interpretation in Health Sciences (3cr.)

KAAP - 607 - Motor Learning and Control (3cr.)

KAAP - 615 - Advanced Mammalian Physiology (4cr.)

KAAP - 616 - Advanced Mammalian Physiology II (4cr.)

KAAP - 617 - Introduction to Laboratory Instruments (3cr.)

KAAP - 627 - Biomechanical Methods (3cr.)

KAAP - 650 - Life Span Motor Development (3cr.)

KAAP - 651 - Neurophysiological Basis of Human Movement (3cr.)

KAAP - 666 - Special Problem (1 to 12cr.)

KAAP - 808 - Seminar in Motor Behavior (3cr.)

KAAP - 868 - Research (1 to 12cr.)

KAAP - 869 - Master's Thesis (1 to 6cr.)

PSYC - 612 - Human Psychophysiology (3cr.)

PSYC - 626 - Advanced Neuroanatomy (3cr.)

STAT - 615 - Design and Analysis of Experiments (3cr.)

STAT - 617 - Multivariate Methods (3cr.)