

EXERCISE PHYSIOLOGY (MS)



Master of Science in Exercise Physiology (EXP MS)

Unit: College of Education and Human Development (<http://louisville.edu/education>) (GE)

Department: Health and Sport Sciences (<http://louisville.edu/education/departments/hss>)

Program Webpage (<https://louisville.edu/education/degrees/ms-ep>)

Academic Plan Code(s): EXP_MS, EXP_MS_CLN, EXP_MS_RES, EXP_MS_STR,

Program Information

General Program Information

Students who complete the Master of Science degree in Exercise Physiology are prepared to pursue a number of career options. Graduates from our program have continued their education by completing the PhD degree in fields such as exercise physiology, physiology, biochemistry, while others continue to the MD. Many students have pursued careers in allied health fields such as nursing and physical therapy as well as in such fields as aviation physiology, cardiac rehabilitation, corporate wellness, and ergonomics.

Because many of our students seek to work in the fields of cardiac rehabilitation and corporate wellness, the curriculum is structured to satisfy the preliminary requirements for certification as "exercise technologist" or "exercise specialist" as set by the American College of Sports Medicine. The curriculum provides students the necessary knowledge base and coursework to satisfy entrance into the certification process (which is under the control of the American College of Sports Medicine and requires both a written and practical exam).

Admission Requirements

Admission will be based on a holistic approach using minimum GPA and GRE requirements, prior coursework (including GPA in science classes), experience, three letters of recommendation, resume, and a personal statement explaining interest in the program and long term objectives.

A variety of undergraduate majors are acceptable, including exercise science, biology, chemistry, physiology, nursing, etc.

In addition, the student must complete the application (<http://louisville.edu/graduate/apply>) procedure as required by the Graduate School. Students are recommended to have earned a grade-point average of at least 2.75 on a 4-point scale in their undergraduate program. Average GRE scores for successful student usually range from composite scores of 293-310 (Verbal and Quantitative sections

combined) and 4.0-4.5 on the Analytical section. Admission to the program is competitive.

Degree Requirements

MS in Exercise Physiology students choose from multiple degree options:

1. Thesis Option;
2. Non-Thesis, Clinical Option;
3. Concentration in Strength and Conditioning, Thesis Option*; and
4. Concentration in Strength and Conditioning, Non-Thesis Option.

**New applications to the Thesis Option of the Strength and Conditioning concentration are not being accepted at this time.*

Thesis Option

(with prior Organic Chemistry)

The MS thesis option requires a minimum of 42 credit hours of course work, which includes six (6) credit hours devoted to completion of the thesis. Students in this option are required to actively participate in all phases of research within the laboratory. The thesis program requires two full years of study including the summer between the first and second years. To complete the MS in Exercise Physiology, a minimum of 23 credit hours must be at the 600 level or above

Admission Requirements: Organic Chemistry with Lab

Course	Title	Hours
Year 1		
Fall		
EXP 501	Applied Exercise Physiology	3
EXP 601	Laboratory Methods in Exercise Physiology	3
PHZB 605	Systemic Physiology I	5
		Hours
		11
Spring		
EXP 502	Principles of Exercise Testing and Prescription	3
EXP 600	Physiology of Exercise	3
PHZB 606	Systemic Physiology II	5
		Hours
		11
Year 2		
Fall		
HSS 604	Research Methods in HSS	3
EXP 603	Seminar in Exercise Physiology	3
CHEM 645	Advanced Biochemistry I	4
		Hours
		10
Spring		
CHEM 647	Advanced Biochemistry II	4
EXP 699	Thesis	6
		Hours
		10
		Minimum Total Hours
		42

Non-Thesis Clinical Option

The MS non-thesis option emphasizes the use of exercise as a clinical intervention. This option is heavily slanted toward improved cardiovascular health and cardiovascular rehabilitation through the use of exercise.

Students in this option must complete a minimum of 36 credit hours of coursework. The non-thesis program requires two full years of study including the summer between the first and second years.

Code	Title	Hours
Core		
EXP 501	Applied Exercise Physiology	3
EXP 601	Laboratory Methods in Exercise Physiology	3
EXP 605	Human Physiology	3
EXP 502	Principles of Exercise Testing and Prescription	3
EXP 600	Physiology of Exercise	3
EXP 604	Advanced Topics in Exercise Physiology	3
HSS 604	Research Methods in HSS	3
EXP 603	Seminar in Exercise Physiology	3
Clinical Concentration		
EXP 503	Clinical Exercise Physiology	3
EXP 611	Advanced Cardiorespiratory Physiology with ECG	3
EXP 620	Exercise Physiology Internship	6
Minimum Total Hours		36

EXP 607	Neuromuscular Exercise Physiology	3
EXP 608	Strength and Conditioning I	3
EXP 699	Thesis	6
Minimum Total Hours		39

Non-thesis Option - Concentration in Strength and Conditioning

Code	Title	Hours
Core		
HSS 604	Research Methods in HSS	3
EXP 501	Applied Exercise Physiology	3
EXP 502	Principles of Exercise Testing and Prescription	3
EXP 600	Physiology of Exercise	3
EXP 601	Laboratory Methods in Exercise Physiology	3
EXP 603	Seminar in Exercise Physiology	3
EXP 605	Human Physiology	3
Strength and Conditioning Concentration Non-Thesis Option		
HSS 530	Nutrition and Athletic Performance	3
EXP 607	Neuromuscular Exercise Physiology	3
EXP 608	Strength and Conditioning I	3
EXP 609	Strength and Conditioning II	3
EXP 620	Exercise Physiology Internship	3-6
Minimum Total Hours		36-39

Thesis Option - Concentration in Strength and Conditioning

No applications are being accepted.

Code	Title	Hours
Core		
HSS 604	Research Methods in HSS	3
EXP 501	Applied Exercise Physiology	3
EXP 502	Principles of Exercise Testing and Prescription	3
EXP 600	Physiology of Exercise	3
EXP 601	Laboratory Methods in Exercise Physiology	3
EXP 603	Seminar in Exercise Physiology	3
EXP 604	Advanced Topics in Exercise Physiology	3
EXP 605	Human Physiology	3
Strength and Conditioning Concentration Thesis Option		
HSS 530	Nutrition and Athletic Performance	3