

College of Human Ecology

Kinesiology

Overview

Kinesiology is the science of physical activity across a range of tasks, including exercise, daily living, play, sport and work. Physical activity is vital to preventing chronic diseases and premature death, and it enhances one's quality of life.

Kinesiology promotes an understanding of the necessity and application of physical activities for optimal health. Coursework integrates biological science and social and behavioral science approaches using biomechanical, physiological, psychological and sociological perspectives.

Kansas State University's international reputation in exercise physiology and exercise behavioral science provides students the opportunity to pursue exercise-related careers after graduation or seek admission to advanced education through health professional and graduate school.

More than 50 percent of K-State kinesiology graduates each year are admitted to physical therapy, physician assistant, public health, medicine, chiropractor and other health-related advanced graduate degree programs. In addition, several outstanding students are admitted during their junior year at K-State for a combined Bachelor of Science-Master of Science in kinesiology with an emphasis in exercise physiology or a combined Bachelor of Science-Master of Public Health. The combined degree programs offer an accelerated route to an advanced degree.

Points of pride

Kansas State University's international reputation in exercise physiology and exercise behavioral science provides students the opportunity to pursue exercise-related careers or continue their education. More than 50 percent of our graduates are admitted to health-related advanced graduate degree programs each year.

Professional options

Graduates with a degree in kinesiology have been very successful in gaining admission to health professional and graduate school or pursuing exercise-related careers after graduation. Many students choose health professional school to develop careers in physical therapy, physician assistant, nursing, exercise physiology and public health physical activity.

Careers

- Academic researcher
- Chiropractor
- Dentist
- Exercise behavioral scientist
- Exercise physiologist
- Exercise specialist
- Fitness specialist
- Health educator
- Medical assistant
- Medical doctor
- Medical laboratory technician
- Nurse
- Occupational therapy
- Personal trainer
- Physician assistant
- Physical therapist
- Public health physical activity specialist
- Radiation technician
- Rehabilitation specialist
- Sports coach

Employers

- Athletic clubs
- Community recreation centers
- Health foundations
- Health-related businesses
- Hospitals
- Hotels
- Medical offices
- Private sports and recreation clubs
- Public health departments
- Resorts
- Schools
- Universities
- Wellness centers

Job experience

An internship is an excellent opportunity to showcase your academic knowledge and practical skills in a real-world setting before graduation.

Academics

Degree option

Students earn a Bachelor of Science, or B.S., in kinesiology or a B.S. dual degree in nutrition and kinesiology.

Exercise physiology is the response of the human body to physical activity. Emphasis will be placed on understanding the structure-function relationships of the respiratory, cardiovascular and muscular systems, and how their function is integrated to support the dynamics of muscular contraction.

Exercise behavioral science focuses on understanding behavioral and social processes that influence physical activity and the use of these processes to explain or modify physical activity and public health outcomes. Behavioral processes refer to overt actions such as cognition, emotion, temperament and motivation whereas social processes include socio-economic status, socio-demographic characteristics and the various levels of social conditions ranging from small groups to complex cultural systems and societal influences. Exercise behavioral science is studied from multiple levels, including individual, interpersonal, settings, policy and socio-cultural.

Pre-health professional curricula

Students seeking admission to physical therapy, medical and other health professional schools may major in kinesiology (or another discipline) provided the required preprofessional course work is completed.

Students should seek a pre-health professions advisor from the dean's office of the College of Human Ecology and a kinesiology advisor for proper planning to meet academic and professional goals.

Dual degree in nutrition and kinesiology

This degree provides preparation for professional careers in wellness and careers that interface the roles of nutrition and physical performance. Principles of nutrition, food

science, community nutrition, concepts of personal health and nutrition needs throughout the life cycle are included in this degree. Consult with advisors in the departments of Food, Nutrition, Dietetics and Health, and Kinesiology for more information.

Minor in kinesiology

A kinesiology minor requiring 16 credit hours allows students who are not kinesiology majors to gain a general understanding of the necessity of movement for physical and psychological health.

Preparation

Students should complete a rigorous high school curriculum that prepares them to complete courses in the biological sciences and the social sciences.

Activities

Students are encouraged to get involved with the Kinesiology Student Association, student ambassadors, community fitness programs and research laboratories.

Clubs

The Kinesiology Student Association is the undergraduate student organization in the Department of Kinesiology at K-State. The objectives of the organization are to:

- Advance the student interest and appreciation of the field of kinesiology.
- Foster a spirit of loyalty, friendship and cooperation among students through experiences and responsibilities for a career in the area of kinesiology.

The association sponsors monthly guest speakers who work in kinesiology-related fields and also organizes social events, such as intramural sport teams.

Service opportunities

The Department of Kinesiology offers a community fitness program and structured exercise classes such as K-State CrossFit. Students can earn practicum credit working in these programs.

Research

Students are also encouraged to get involved in faculty research programs. Laboratories include:

- Cardiorespiratory Exercise Lab
- Human Exercise Physiology Lab
- Functional Intensity Training Lab
- Social Analysis of Physical Activity Lab
- Physical Activity Intervention Research Lab

- Physical Activity Research in Community Settings Lab
- Cardiovascular Oncology Lab
- Autonomic Physiology Lab
- Clinical Integrative Physiology Lab

Kinesiology faculty members are funded for research projects from agencies such as NASA, National Institutes of Health, USDA, American Heart Association and the Robert Wood Johnson Foundation.

For more information about research opportunities, visit the laboratory website accessible from the kinesiology website at k-state.edu/kines.

Suggested coursework

Kinesiology majors must take a minimum of 36 kinesiology credit hours that include 18 credit hours each from the lower-level core and from the upper-level core. It is a requirement to take one of the physiology course options, one of the exercise behavioral science course options and 12 credit hours of 300 level or above kinesiology courses. At least 3 of the 12 elective hours must be a 600 level or higher, plus 3 credit hours in human nutrition.

A minimum grade of C and GPA of 2.2 are required for all kinesiology courses meeting degree requirements.

Lower-level core (18 credit hours)

KIN 220	Biobehavioral Bases of Physical Activity
KIN 310	Measurement and Research Techniques
KIN 335	Physiology of Exercise
KIN 336	Physiology of Exercise Lab
KIN 345	Public Health Physical Activity

Upper-level core (18 credit hours)

Exercise physiology (3 credit hours)

Select one course from the following (3 hours)

KIN 601	Cardiorespiratory Exercise Physiology
KIN 603	Cardiovascular Exercise Physiology
KIN 607	Muscle Exercise Physiology
KIN 611	Neurological Exercise Physiology

Exercise behavioral science (3 credit hours)

KIN 600	Interpersonal Aspects of Physical Activity
KIN 602	Social Structural Determinants Physical Activity
KIN 612	Policy, Built Environment and Physical Activity
KIN 614	Physical Activity Behavior Settings: Youth Sport to Senior Centers
KIN 655	Individual Physical Activity Promotion

Kinesiology elective courses

300 level or higher (12 credit hours)

At least one elective must be 600 level or higher.

Basic science prerequisites

Prerequisites for kinesiology courses are identified in the course descriptions. Below is an overview of basic science prerequisites.

PSYCH 110	General Psychology
SOCIO 211	Introduction to Sociology
BIOL 198	Principles of Biology
BIOL 340	Human Body or
KIN 360	Anatomy and Physiology

Kinesiology students must also complete a course in biochemistry, chemistry or physics. Additional courses in biochemistry and chemistry are strongly encouraged for some areas of study.

For more information about kinesiology, contact:

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For more information about Kansas State University, contact:

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785-532-6250
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Post-Graduation Statistics
k-state.edu/postgrad-stats
ksdegrestats.org