

KINESIOLOGY (KIN)

Degree Offered: M.S., Graduate Certificate

This program is offered in Durham.

The Department of Kinesiology offers a master of science degree in Adapted Physical Education as well as a master of science in Kinesiology with the following areas of concentration: exercise science and sport studies.

Additionally, a graduate certificate in adapted physical education is offered.

Admission Requirements

Admission is based on undergraduate preparation, academic record, and letters of recommendation. Applicants must be above-average students and show adequate preparation in the basic support courses of the selected concentration area. Applicants who have not met specific course prerequisites should expect to take additional undergraduate work without receiving graduate credit.

<https://chhs.unh.edu/kinesiology/academics>

Programs

- [Adapted Physical Education \(Graduate Certificate\)](#)
- [Kinesiology \(M.S.\)](#)
- [Kinesiology: Adapted Physical Education \(M.S.\)](#)

Courses

Kinesiology (KIN)

KIN 802 - Health Content and Youth Risk Behaviors

Credits: 4

This course explores topics related to adolescent health, well-being, and risk behaviors that are relevant in the health education classroom today. Grounded in health behavior theories and behavior change, students explore ten dimensions of wellness: Cultural, Emotional, Environmental, Financial, Intellectual, Occupational, Physical, Sexual, Social, and Spiritual. Students develop a content base for teaching Standard 1 (Core Concepts) of the National Health Education Standards and better understand how health behaviors affect individual health and health instructions.

Grade Mode: Letter Grading

KIN 804 - Electrocardiography

Credits: 4

This course is designed to provide students exposure regarding basic interpretation and identification of electrocardiograms (ECGs). Included in this is detailed heart anatomy, coronary circulation, cardiac conduction system, electrocardiogram development, and all aspects pertaining to normal and abnormal ECGs.

Grade Mode: Letter Grading

KIN 805 - Topics in Applied Physiology

Credits: 4

Advanced exercise physiology course dealing with topics both current and relevant to exercise science majors. Includes: genetics, environmental influences, immune system, detraining and over-training, epidemiology, ergogenic aids and the influence of age and gender.

Grade Mode: Letter Grading

KIN 806 - Neurology

Credits: 4

A detailed study of the development, morphology, internal configuration, physiology, histology, function, and pathology of the human nervous system. Labs consist of clinical case studies, brain dissections, and videos/slides to enhance the understanding of material. Prereq: human anatomy and physiology. Lab.

Co-requisite: KIN 807

Grade Mode: Letter Grading

KIN 807 - Neurology Lab

Credits: 2

Basic histology, neuroanatomy and neurophysiology of the human nervous system. Use of brain specimens, videos and pathology case studies to elucidate cell structure, sensory and motor systems, and spinal cord, brainstem, and cortical organization and anatomy. ZOOL 507 - ZOOL 508 or COMM 521 or equivalent required prior to taking this course.

Co-requisite: KIN 806

Grade Mode: Graduate Credit/Fail grading

Special Fee: Yes

KIN 812 - Health Education Practicum

Credits: 4

The purpose of this practicum is to provide students with an opportunity to observe, develop, and teach in a health education classroom. Students are required to accumulate 60 hours of teaching experience in the schools over the course of the semester. Weekly seminars will integrate field experience with content knowledge in health, nutrition and physical activity.

Prerequisite(s): HPE 648 with a minimum grade of D-.

Grade Mode: Letter Grading

KIN 820 - Science and Practice of Strength Training

Credits: 4

Designed to provide graduate students exposure to the knowledge and practical experience necessary for establishing strength development programs in a variety of populations, including healthy, athletic, and higher risk individuals. Program design, correct lifting techniques, physiological adaptations, and organization and administration of programs are highlighted. Includes fundamentals regarding the selection of programs and equipment, spotting techniques, as well as ways to assess strength and power in humans without expensive equipment.

Grade Mode: Letter Grading

KIN 822 - Applied Biomechanics

Credits: 4

This course provides students with a background in the fundamental biomechanical principles that describe and govern human movement. Topics of the course include friction, linear and angular motion, tissue material properties, conservation of energy, work and power, fluid mechanics, stability and center of gravity, mechanics of injury, walking and running gait analysis. These topics are taught through the lens of modern biomechanical analyses including dynamometry, electromyography, accelerometry, and optical motion analysis.

Grade Mode: Letter Grading

KIN 824 - Exercise Metabolism: Acute and Chronic Adaptations**Credits:** 4

An overview of the metabolic processes that occur during exercise and metabolic changes that occur as a result of exercise training. Topics covered include glycogenolysis and glycolysis in muscle, cellular oxidation of pyruvate, lipid metabolism, metabolism of proteins and amino acids, neural and endocrine control of metabolism, and fatigue during muscular exercise.

Grade Mode: Letter Grading**KIN 840 - Athletic Administration****Credits:** 4

Introduces basic management components and processes used in the successful administration of school and college athletic programs. Topics include planning, organizing, and managing sports programs, personnel and policies; game scheduling; finances and facilities; equipment and event management; student services; and key legal issues.

Grade Mode: Letter Grading**KIN 841 - Social Issues in Contemporary Sports****Credits:** 4

An investigation into interrelationships among sport, culture, and society in an attempt to understand better the role and function of sport in contemporary society. Broad overview of selected socio-cultural factors that influence participation and result from participation in sports.

Grade Mode: Letter Grading**KIN 842 - Advanced Assessment in Adapted Physical Activity****Credits:** 4

This course provides students a experience to work with children with disabilities in physical activity and physical education settings. A blend of lectures (online and in-person) and practicum experiences in local schools will provide students the opportunity to learn how to apply adapted physical activity best practices and research to school contexts through class discussion, readings, and written assignments. This course provides an opportunity for refinement and continued development of teacher skills and practices for working with students with disabilities. A primary focus will be on assessment, planning, and implementation of physical education and physical activity programming for students with disabilities. In addition, a focus on how these assessments impact the individualized education program (IEP) will be emphasized.

Grade Mode: Letter Grading**KIN 848 - Skill Development and Assessment in Health Education****Credits:** 4

Preparing students to face health challenges of the 21st century requires teaching health education in ways that increases individual health literacy and self-efficacy to lead a health-enhancing life. Teaching students the necessary skills is not enough, we must also assess student learning in authentic and meaningful ways that measure growth and levels of skill proficiency. Using the Performance Indicators of the National Health Education Standards as a guide, we will explore how to teach health education in a skills-based way and to develop formative & summative assessments that measure student learning & resulting proficiency. We will discuss strategies to develop health literate individuals who have the capacity & competence to make health-enhancing choices across the lifespan. Coursework includes readings, in-class work time, & development of tools you can use in your classroom.

Grade Mode: Letter Grading**KIN 864 - Advanced Sport Marketing****Credits:** 4

An advanced course covering sport marketing, which includes a review of key sport marketing terms/concepts, in-depth experience writing as a sport marketer, and practical experience acting as a sport marketer. This course will instruct students on how to complete all aspects of an in-depth marketing plan. This is an undergraduate/graduate dual student course.

Grade Mode: Letter Grading**KIN 865 - Advanced Topics in Coaching****Credits:** 4

This course goes beyond the basic principles of coaching and addresses advanced topics in coaching (talent identification, talent development) from both the science and the art of coaching technique and strategies. This course is structured as an upper division course in Sports Studies. Content includes topics related to the development of the field of coaching. The class makes extensive use of case studies and analysis of practical coaching situations for the betterment of coach development. This course combines lecture, small group discussion and practical application of material.

Prerequisite(s): SPST 565 with a minimum grade of D-.**Grade Mode:** Letter Grading**KIN 870 - Research Methods in Kinesiology****Credits:** 4

The focus of this course will be the process of conducting research, starting with the development of the research question and working through issues associated with methodology, data collection, analysis, and interpretation. The course will examine research traditions commonly employed in investigations in exercise science, health sciences, health and physical education, and sport management and leadership: group comparison designs, historical research, and behavioral analysis (single subject design). The goal of this course is to prepare students to conduct research and understand the components of the process.

Equivalent(s): KIN 901**Grade Mode:** Letter Grading**KIN 880 - Psychological Factors in Sport****Credits:** 4

Factors of outstanding athletic achievement; psychological variables in competition; the actions and interactions of sport, spectator, and athlete. Special attention to directed to strategies for coaches, teachers, and athletic trainers to utilize sport psychology in their professional practice. Introduction to Psychology required prior to taking this course.

Grade Mode: Letter Grading**KIN 881 - Introduction to Adapted Physical Education****Credits:** 4

This course covers an understanding of the skills to adeptly execute diverse physical activity programs tailored to the specific needs of individuals with disabilities within K-12 school settings. This course begins with an understanding of the term disability followed by the legal mandates that define school policy and student placement. Throughout the course an overview of disability will be analyzed with readings that include an analysis of the social medical models designed to challenge the social construction of disability and orientations for practice. Classroom time will also include direct teaching of individuals with disabilities in physical activity settings.

Grade Mode: Letter Grading

KIN 894 - Cardiopulmonary Pathologies**Credits:** 4

Lecture study of the anatomy, physiology, and pathophysiology of the cardiac, vascular, and pulmonary systems. Particular emphasis on the study of cardiovascular function in diseased and stressed states. Clinical assessment of the cardiopulmonary patient. Course offering includes the addition of teaching experiences and real-patient case study assignments to better prepare the graduate student through increased application of knowledge and experiences to real-world situations.

Grade Mode: Letter Grading**KIN 895 - Advanced Studies****Credits:** 2-4

Independent study problems.

Repeat Rule: May be repeated for a maximum of 8 credits.**Grade Mode:** Letter Grading**KIN 896 - Advanced Research in Exercise Science****Credits:** 3 or 6

Students design and conduct original research that culminates in a paper of publishable quality. Completion of either this course or KIN 899 satisfies the department's research requirement for the master's degree. May be taken for 3 credits per semester in each of two semesters or 6 credits in one semester. IA (continuous grading).

Repeat Rule: May be repeated for a maximum of 6 credits.**Grade Mode:** Graduate Credit/Fail grading**KIN 899 - Master's Thesis****Credits:** 1-6

Master's Thesis.

Repeat Rule: May be repeated for a maximum of 6 credits.**Grade Mode:** Graduate Credit/Fail grading**KIN 902 - Colloquium****Credits:** 1-2

Seminar format with readings, discussions, laboratory tutorials, and presentations of current research topics. A) exercise science; B) outdoor education; C) special physical education; D) sport studies.

Repeat Rule: May be repeated for a maximum of 8 credits.**Grade Mode:** Graduate Credit/Fail grading**KIN 950 - Internship****Credits:** 2-4

Experiential learning in a setting appropriate to the student's objectives. A 4-credit internship requires a minimum of 200 hours experience. Fewer credits require proportionally fewer hours. A) Exercise Science. Clinical work, normally in a hospital or laboratory setting, involving exercise physiology, graded exercise testing, exercise prescription, and/or cardiac rehabilitation. Must have completed all required coursework except thesis. B) Special Physical Education C) Sport Studies.

Grade Mode: Graduate Credit/Fail grading**KIN 993 - Teaching Practicum****Credits:** 2

Students work with a faculty mentor to investigate, observe, and practice teaching methods using current pedagogical and assessment methods and theories. Includes use of various instructional technologies as tools to enhance the teaching/learning process. Designed for graduate students who wish to gain experience teaching at the collegiate level in KIN fields upon completion of the Master's or Ph.D. degree.

Repeat Rule: May be repeated for a maximum of 6 credits.**Grade Mode:** Graduate Credit/Fail grading

Faculty

Kinesiology Department Faculty