

KINESIOLOGY (KIN)

Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

KIN 802 - Health Content and Youth Risk Behaviors

Credits: 4

This course explores the fundamental issues related to health and wellness. Learning outcomes include understanding the seven dimensions of wellness, the overarching foundations of health behaviors, the mind-body connection, how to access social sciences literature, and the eight national health education standards as outlined in the New Hampshire curriculum guidelines. Topics to be considered include adolescence, perception and attitude, self-concept, self-identity, gender, culture, family systems, love and relationships, mental illness and addiction.

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. Open to Kinesiology majors only.

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. Special fee.

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.

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. Prereq: ZOO 507 - ZOO 508 or COMM 521 or equivalent. Special fee. Cr/F.

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. Prereq: KIN 648.

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. Prereq: KIN 620 or equivalent.

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 will include friction, linear and angular motion, tissue mechanical properties, conservation of energy, work and power, fluid mechanics, stability and center of gravity, walking and running gait analysis. These topics are taught by quantitatively analyzing human movements through the use of modern biomechanical analyses including dynamometry, electromyography, accelerometry, and optical motion analysis. Prereq: BMS 507, BMS 508, KIN 652 or permission. Kinesiology major or permission.

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. Prereq: physiology of exercise and general chemistry.

KIN 831 - Inclusive Teaching Through Sport

Credits: 4

This hybrid course examines the practical application of inclusion through Paralympic and adapted sports including wheelchair basketball, sitting volleyball, goalball, boccia, table-top games and "traditional" sports. In-class sessions will be held the first three weeks while an on-line/independent portion will be conducted the last two weeks of the course. A variety of sporting activities will be introduced that provide educators with the needed tools to develop and implement physical and recreational programs for all.

KIN 836 - Fitness and Graded Exercise Test and Prescription

Credits: 4

This course is designed to provide students exposure to the knowledge and practical experience necessary for establishing exercise programs in apparently healthy populations. Topics include fitness testing, test interpretation, and exercise prescription. Prereq: KIN: Exercise Science major. Special fee.

KIN 837 - Exercise Prescription and Leadership in Healthy and Special Populations

Credits: 4

Provides exposure to the knowledge and practical experience necessary for establishing exercise and health promotion programs in a variety of populations. Includes fundamentals regarding personal training and program selection, implementation and equipment, legal issues, and budget establishment. Aerobic and strength training programs in special populations are highlighted. Prereq: KIN 836.

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. Prereq: permission.

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. Prereq: introduction to sociology or permission.

KIN 842 - PE Practicum for Students with Disabilities

Credits: 4

This experience is part of the required coursework for the Adapted Physical Education (APE) certificate through the Graduate School. As a bi-weekly seminar intergrates the field experiences with general physical education (GPE) and adapted physical education contexts through class discussion, readings, and written assignments. The seminar format 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.

KIN 843 - Sport Marketing

Credits: 4

A survey of concepts and processes used in the successful marketing of sport programs and events. Special emphasis placed on the unique or unusual aspects of sport products, markets, and consumers. Prereq: survey of marketing and methods or permission.

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. Prereq: KIN 565.

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. Prereq: introduction to psychology.

KIN 881 - Inclusion in Physical Education

Credits: 4

As schools move towards more inclusive settings, physical education teachers need the knowledge, skills, and dispositions for educating students with disabilities in general and adapted physical education. The course begins with the legal mandates that define school policy, student placement, collaborative practices and assessments for students with disabilities. From there, we present an overview of disability theories that includes analysis of the social and medical models with readings and discussions designed to challenge the social construction of disability and the outcomes of these orientations for practice. As a way to deepen out knowledge of, and ability to teach students with disabilities, classroom time includes direct teaching of individuals with disabilities. To fully realize the skills needed to teach students within general and adapted settings, "outside" lab experience is also required.

KIN 882 - Therapeutic Applications of Adventure Programming

Credits: 4

A study of theory, practice, and research of adventure experiences in therapeutic settings. Incorporates theoretical seminars and associated practical experiences. Prereq: KIN 787. (Also listed as SW 882.)

KIN 883 - Pysch Factors of Adventure Ed

Credits: 4

Adventure educators are often called to work with people facing short-term psychological challenges like being effective in a group or managing fear and discomfort in a vigorous learning environment. Because the adventure environment can be pyschologically demanding, an understanding of basic psychology is an advantage both for effective practice and research. Course emphasizes the history of psychological research to provide a foundation for the adventure educator's work leading, designing and evaluating adventure-based programs.

KIN 884 - Historical Foundations of Outdoor Experiential Education

Credits: 4

Reviews the historical, conceptual, and political foundations of major 20th century educational reform initiative. It focuses in particular on the educational philosophy of John Dewey, the social reforms advanced by German educator Kurt Hahn(founder of Outward Bound), humanistic 'encounter' programs of the 1960s and 1970s, and scholarship on contemporary reforms. Class follows a seminar format; students complete independent presentations and a comprehensive final exam.

KIN 885 - Program Models and Evaluation in Outdoor Education

Credits: 4

Provides an understanding of the major outdoor education program models currently being used. Students also analyze the principles underlying program development and examine current trends and program evaluation approaches. Topics include research methods, evidenced-based practices, and ethics.

KIN 886 - Organization and Administration of Outdoor Education

Programs

Credits: 4

Study of administration of outdoor education programs using a variety of organizational models. Students use simulated exercises and work with outdoor agencies on special projects to learn the key factors necessary to manage a program. Field experience. Special fee.

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.

Prereq: KIN 804.

KIN 895 - Advanced Studies**Credits:** 2-4

Independent study problems. Prereq: permission of graduate adviser. May be repeated up to 8 credits.

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. Maximum 6 credits. Kinesiology majors only. Cr/F. IA (continuous grading).

KIN 897 - Advanced Topics in Outdoor Education**Credits:** 2-6

Meets regularly to support students integrating advanced knowledge into independent projects that culminate in a substantial professional product, a paper of publishable quality, or a presentation to an outside professional audience. Completion of either this course or KIN 899 (thesis) satisfies the department's requirement for culmination of the master's degree. May be taken in combinations of 2, 3, or 4 credits over multiple semesters, or up to 6 credits in one semester. Maximum 6 credits. Kinesiology majors only. Cr/F. IA (Continuous grading).

KIN 898 - Special Topics**Credits:** 1-4

New or specialized courses not normally covered in regular course offerings. Prereq: permission. May be repeated up to 8 credits. Special fee on some sections.

KIN 899 - Master's Thesis**Credits:** 1-6

May be repeated up to a maximum of 6 credits. Cr/F.

KIN 901 - Analysis of Professional Literature**Credits:** 4

Critical interpretation of professional literature. This course focuses on the appropriate use of research methodologies and techniques.

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. May be repeated up to a maximum of 8 credits. Cr/F.

KIN 909 - PE Practicum for Students with Disabilities**Credits:** 2-4

This experience is part of the required coursework for the Adapted Physical Education (PE/APE) certificate through the Graduate School. Students are expected to accumulate 30 hours of teaching experience in the schools for every two credits. In addition, attendance at a bi-weekly seminar integrates the field experience with general physical education (GPE) and adapted physical education (PE/APE) concepts through class discussion, exercises, readings, and written assignments. The seminar format provides an opportunity for refinement and continued development of teacher skills and attributes for working with student with disabilities. Students learn to instruct effectively, to participate in the individual Education Plan (IEP) process, and to manage their time.

KIN 910 - Curricular Issues in Health Pedagogy**Credits:** 4

This course examines health education and curricular issues as they affect the teaching of health in social settings. Specific curricula designed to focus on health topics are discussed as well as appropriate and relevant teaching methods for elementary, middle and high school students. Students develop units (including lesson plans, handouts and assessments) for selected grade levels. Student also engage in peer teaching episodes related to various health content.

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 300 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. Cr/F.

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. May be repeated up to a maximum of 6 credits. Prereq: instructor permission. Cr/F.

KIN 998 - Special Topics**Credits:** 2-4

Occasional, new, or experimental courses for graduate students in both KIN: Sport Studies and RMP. Prereq: permission. May be repeated for different topics up to a total of 8 credits.