Department of Kinesiology and Health

For information, contact the Department of Kinesiology and Health, 106 Phillips Hall, 513-529-2700.

The mission of the Department of Kinesiology and Health is to advance the understanding of health, physical activity, and related cultural practices to improve life quality and promote healthful, active living.

The faculty is deeply invested in offering high quality educational and research programs. Phillips Hall has state-of-the-art classrooms and laboratory facilities for enriching the educational and research experience of Miami University students.

The department offers four undergraduate program majors including kinesiology, nutrition, public health and sport leadership and management. The department also offers three undergraduate program minors: coaching, nutrition, and sport management.

- Bachelor of Science in Kinesiology and Health in:
  - Kinesiology
  - Nutrition
  - Public Health
  - Sport Leadership and Management

Kinesiology and Health Courses

**KNH 101. Personal Nutrition: a survey course. (2)**
Nutrition topics relevant to young adults will be explored through application of basic nutrition principles to real life situations. Self-assessment and monitoring of personal nutrition status are an integral part of this course. This course is for non-majors. This is not substitution for KNH 102 Fundamentals of Nutrition for KNH majors.

**KNH 102. Fundamentals of Nutrition. (3)**
Food nutrients, essentials of an adequate diet, relationship of food to physical well-being.

**KNH 103. Introduction to the Profession of Dietetics. (2)**
An introductory course for students interested in Dietetics. Content will include the history, current practices and future trends in Dietetics. This course covers the practical application of principles from the integration of knowledge of food, nutrition, biochemistry, physiology, management and behavioral and social science. Students will explore career opportunities in Dietetics including an overview of the dietetic internship application process.

**KNH 104. Introduction to Food Science and Meal Management. (3)**
Introduction to food composition, selection and preparation, principles and techniques of meal management. Includes lecture (1) and lab (2).

**KNH 110. Dance. (2)**
Emphasis placed on beginning technique of each dance form.

**KNH 110A. Beginning Ballet. (2)**
Classical ballet technique. Work at the barre stressed. Cross-listed with THE 110A.

**KNH 110G. Beginning Modern Dance. (2)**
Technique stressed. Correct form and body placement along with flexibility and control covered. Cross-listed with THE.

**KNH 110S. Social Dance - Men. (2)**
Rhythms, steps, and positions of various ballroom dances, mixers, etc.

**KNH 110T. Social Dance - Women. (2)**
Rhythms, steps, and positions of various ballroom dances, mixers, etc.

**KNH 110U. Intermediate Social Dance - Men. (2)**
This class focuses on advanced rhythms, steps, and positions for complex dances from around the world, emphasizing the difference between American and international styles. Students will perform the Foxtrot, Rumba and Tango, among others, and learn about the historical, social, and cultural practices associated with these dances. Students will be taught the correct etiquette of each dance and be required to attend 3 extra dances outside class time. Prerequisite: KNH 110S or 110T.

**KNH 110W. Intermediate Social Dance - Women. (2)**
This class focuses on advanced rhythms, steps, and positions for complex dances from around the world, emphasizing the difference between American and international styles. Students will perform the Foxtrot, Rumba and Tango, among others, and learn about the historical, social, and cultural practices associated with these dances. Students will be taught the correct etiquette of each dance and be required to attend 3 extra dances outside class time. Prerequisite: KNH 110S or 110T.

**KNH 112. Transition for College Students. (2)**
This course is designed to help students prepare for the transition from high school to college. This course will focus on personal and leadership development through small group discussions, hands on experience, guest lectures, and a variety of readings and assignments to help you acclimate to college. Students will explore their values and belief systems, practice advanced study strategies and techniques, develop critical time management skills, research various leadership theories, and develop their own personalized development plan to help them achieve their goals. Prerequisite: first and second year students only.

**KNH 116. Personal Wellness. (1)**
Introduction to the dimensions of Wellness Model. Promote and facilitate a holistic approach to living the Health Enhancement Lifestyle Management (HELM).

**KNH 120A. Aerobics. (2)**
Fitness program consisting of rhythmic activities to develop cardiovascular conditioning and flexibility.

**KNH 120B. Beginning Badminton. (2)**
Beginning badminton will develop students’ understanding of badminton as an international sport. Students will learn the culture, history, fundamental rules and regulations, and basic movement techniques through participation in the course.

**KNH 120C. Individual Exercise. (2)**
Programming to give students opportunity to develop strength, endurance, flexibility, coordination, and power by executing specific exercises and activities.

**KNH 120E. Self Defense. (2)**
Individual basic defense skills; awareness of necessary precautions.
Fundamental skills, rules, and strategy necessary for team play.

KNH 140A. Basketball. (2)
Introduction to fundamental principles of weight training. Includes selection and implementation of a weight training program and discussions of kinesiological and physiological principles as they relate to weight training.

KNH 120L. Jogging for Health and Fitness. (2)
This course introduces and develops the appropriate choices in making jogging a core component within a healthy lifestyle.

KNH 120K. Marathon Training. (2)
This course introduces and develops the techniques to train and successfully complete a marathon.

KNH 130P. Intermediate Ice Skating. (2)
This course introduces students to sustainable ways to engage in physical activity. The course explores a variety of activities such as parcourse, yoga, tai chi, informal games, mountain biking and student developed activities.

KNH 120T. Beginning T’ai Chi. (2)
This course will cover the Short (Simplified Modern) Yang Style T’ai Chi Chuan 24-Posture form which is the most-often taught version in the world. Developed by Yang Cheng Fu for instructing the Chinese Emperor’s family over a hundred years ago, it is considered a valuable health exercise with many proven benefits, although it is also an effective martial art or self-defense. Often called “Meditation In Motion”, T’ai Chi has been shown to relieve stress and increase flexibility, balance and focus.

KNH 125. Introduction to Public Health. (3) (MPF)
Public health is a multi-disciplinary field aimed at reducing preventable morbidity and premature mortality, and promoting a higher quality of life in populations and groups through health intervention. This course is designed to introduce the basic tenets, applications, and foci of public health, including integrating public health with other health professions. It will provide a history of public health, an overview of the core disciplines, current events and issues in the field. IIC.

KNH 130H. Golf. (2)
Basic golf skills, etiquette, and rules of the game.

KNH 130I. Intermediate Golf. (2)
Intermediate techniques and strategies for students who have mastered basic skills.

KNH 130K. Racquetball. (2)
Fundamental skills and knowledge of the game.

KNH 130M. Tennis. (2)
Basic strokes of tennis including forehand, backhand, serve, and game experience.

KNH 130O. Basic Ice Skating. (2)
For students with little or no previous experience.

KNH 130P. Intermediate Ice Skating. (2)
Intermediate skills and techniques for students who have mastered fundamentals.

KNH 130T. Advanced Ice Skating. (2)
Advanced techniques of skill in ice skating.

KNH 140A. Basketball. (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140B. Power Volleyball. (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140F. Softball. (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140H. Ice Hockey. (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140J. Soccer. (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140K. Advanced Ice Hockey. (2)
Advanced ice hockey theory and techniques for those with demonstrated skill and hockey background.

KNH 140M. Broomball. (2)
Introduction to basic broomball skills, for those who have never played, for those with limited experience, or with broomball experience, but no formal instruction.

KNH 150. Outdoor Pursuit Activities. (2)
Includes leisure, recreational, and environmental pursuits. Instruction provided in basic skills, knowledge, and social behavior necessary for competent participation. Instruction at the Miami stables and other outdoor locations.

KNH 150A. Beginning Canoeing. (2)
This beginning canoeing course will focus on the essential skills and information that students need to travel safely and comfortably on flat and moving water. The course will cover history, canoe anatomy, clothing and equipment, paddling strokes and techniques, river reading/hazard identification, navigation, and minimizing environmental impact for boaters.

KNH 150B. Beginning Backpacking. (2)
This course will focus on the essential skills and information that backpackers need to travel safely and comfortably in the wilderness. The course will cover trip planning, equipment and usage, cooking and nutrition, minimal impact camping, trail technique, navigation, emergency procedures, and wilderness first aid.

KNH 150C. Beginning Rock Climbing. (2)
Introduction to beginning rock climbing that covers the terminology, equipment, technical and safety skills appropriate for the novice level climber.

KNH 150E. Beginning Horseback Riding. (2)
Introductory course to the fundamentals of horsemanship, basic horse care, and safety around equines.

KNH 150F. Intermediate Horseback Riding. (2)
Develops the fundamental skills of the western style of riding. Course explores equine anatomy, nutrition, and health care. Continues to focus on safety around equines.

KNH 150H. Advanced Horseback Riding. (2)
Explores advanced techniques and tradition in English Equitation. Course content focuses on advanced equine nutrition, anatomy, and physiology of the horse.

KNH 150K. Intermediate Rock Climbing. (2)
This course covers the terminology, equipment, technical and safety skills appropriate for the intermediate level climber. Students will have several opportunities to experience climbing and to put lecture, discussion, and reading materials into practice.
KNH 150M. Mountain Biking. (2)
Students will learn about mountain biking: equipment, performance, safety, its role in health promotion, environmental issues, trail development and maintenance, and building community. Students will learn how to mountain bike safely and will have opportunities to bike on a variety of mountain bike trails of different difficulty levels. Students will also participate in mountain bike trail maintenance and sustainability.

KNH 150N. Beginning Kayaking. (2)
This beginning kayaking course will focus on the essential skills and information that recreational kayakers need to travel safely and comfortably on the water by utilizing the American Canoe Association (ACA) Introduction to Kayaking, Level 1 curriculum. The course will cover equipment and usage, environmental impact for boaters, paddling technique, risk management and emergency procedures.

KNH 170A. Swimming. (2)
For students with little or no previous experience. Basic skills to meet requirements for American Red Cross beginners and advanced beginners certification.

KNH 170B. Intermediate Swimming. (2)
Basic swimming strokes, turns, diving, rescue skills, and personal safety skills; meets American Red Cross intermediate and swimmers requirements.
Prerequisite: ability to swim 25 yards on stomach and back, and swim in deep water.

KNH 177. Independent Studies. (0-5)

KNH 182. Introduction to Athletic Training. (2)
Introductory course for potential athletic training majors and all declared athletic training majors. Emphasis on athletic training profession and clinical components of the athletic training program at Miami.

KNH 183. Foundations of Athletic Training. (3)
Introductory course in the principles of athletic training. Overviews basic techniques of athletic training.
Prerequisite: KNH 182.
Co-requisite: KNH 183L.

KNH 183L. Foundations of Athletic Training Laboratory. (1)
Introductory laboratory to develop and master taping, wrapping, and assessment skills necessary for entry-level certified athletic trainers.
Prerequisite: KNH 182.
Co-requisite: KNH 183.

KNH 184. Motor Skill Learning and Performance. (3)
Introductory analysis of neurophysiological, biomechanical, and socio-behavioral factors that facilitate and inhibit acquisition, refinement, and retention of motor skills.

KNH 184L. Motor Skill Learning and Performance Laboratory. (1)
Laboratory portion of KNH 184.

KNH 188. Physical Activity and Health. (3) (MPF, MPT)
Critical examination of relationships among exercise, physical activity, fitness, and health from epidemiological perspective. The role of genetic, sociocultural, economic, geographic and political influences on physical activity patterns, exercise habits, fitness and health are explored. A description of the physiological mechanisms that link physical activity and health are also examined. IIC.

KNH 194. Standard First Aid and CPR. (2)
Meets requirements for American Red Cross Standard First Aid certification and Cardiopulmonary Resuscitation (CPR) certification.
Prerequisite: sophomore standing or permission of instructor.
Co-requisite: KNH 194L.

KNH 194L. Standard First Aid and CPR Laboratory. (1)
Laboratory portion of KNH 194.
Co-requisite: KNH 194.

KNH 203. Nutrition in Disease Prevention Management. (3)
This course is the study of nutrition in the relation to chronic disease prevention. The course will focus on the menu development for the institutional food service environment including hospitals, extended care facilities and schools. Basic culinary terms and techniques will be integrated into the lab portion of the course. Students will learn and practice management strategies while designing custom menus for specific health related populations. Economic and financial concepts will also be demonstrated and evaluated.
Prerequisites: KNH 102, KNH 103, and KNH 104.

KNH 205. Understanding Drugs for the Health Promotion Professional. (3)
Examines historical, personal, and cultural bases for current patterns of drug use, misuse, and abuse, and identifies the short and long-term consequences associated with such patterns.

KNH 206. AIDS: Etiology, Prevalence, and Prevention. (3) (MPF)
Analysis of personal and social aspects of AIDS, with special emphasis upon preventive behaviors and their education potential. IIC.

KNH 207. Serving and Supporting Children, Youth, and Families I. (4) (MPT)
Introductory analysis of relationships among the conditions, characteristics, and capacities of children, youth, and families (especially those labeled ‘at risk’) and the institutional services and supports intended to improve their well-being. Emphasis placed upon question-finding in different contexts, especially the ways in which the knowledge we claim and the solutions we offer are dependent upon our analytical frames and language.
Cross-listed with FSW.

KNH 208. Serving and Supporting Children, Youth, and Families II. (5) (MPT)
Focuses upon children, youth, and families experiencing needs, problems, and crises. Today’s institutional services and supports are analyzed and evaluated both in class and in educational, health, and social service agencies. Students ‘shadow’ helping professionals in these agencies during directed field experiences. Cross-listed with FSW 208.

KNH 209. Medical Terminology for Health Professionals. (3)
Provides the opportunity for students to comprehend basic terms related to anatomy, pathophysiology, diagnostics and treatment. Students will understand word parts necessary to build medical terms and acceptable medical abbreviations and symbols. Credit not granted to students who have earned credit in BTE 224.

KNH 212. Introduction to Sport Management. (3)
Introduces the foundations and principles of sport management, with a broad focus on administration, supervision, and leadership in the business of sport at all levels.
KNH 213. Global and Community Nutrition. (3) (MPF)
Explores the integration of current food and nutrition research into the development of public policy with emphasis on implementation of Global and Community Nutrition programs. IIC, IIIB.
Prerequisites: KNH 102.

KNH 214. Global Well-Being. (3) (MPF)
As a result of the positive psychology movement that has gained momentum around the world, well-being is now known to be a significant factor influencing quality of life, health, and human performance. This course explores the essence of well-being and its relevance to everyday living. The course also broadens students' perspective by exploring well-being within cultural and global contexts. Students will be given multiple opportunities to examine institutional and cultural influences on individual and societal well-being as well as the global forces influencing the development and use of the human experience of well-being across the globe. IIC, IIB, IC.

KNH 218. Applied Health Behavior Change. (3)
Applied Health Behavior Change focuses on the role of theory in shaping research and practice in health promotion and education. This course will provide an overview of social and behavioral science theories that are currently used to: 1) understand health related behaviors; and 2) guide development of interventions designed to prevent, reduce or eliminate major public health problems.

KNH 221. Social Marketing in Public Health. (3)
Foundational principles and techniques of social marketing which influences individual and societal health behaviors through a systematic plan.

KNH 225. Ethics in Sport. (3)
This course includes an introduction and moderate exploration of ethics in sports. Most of the content is reliant upon the four dominant contemporary ethical decision making models – consequentialism, deontology, contract theory, and virtue ethics – and their nexus with sports. Topics include foundational ethics, fair play, performance enhancing techniques, gender equity, intercollegiate sports, the business of sports, social responsibility in sports, violence in sports, and other dilemmas in sports as they are topical.

KNH 242. Personal Health. (3) (MPF)
Variable course content based upon students' personal health problems and needs. Includes such topics as mental health, marriage and family, mood modifiers, nutrition, etc. IIC.
Prerequisite: sophomore standing.

KNH 243. Women's Health Care: Problems and Practices. (3)
Examines health and medical problems or concerns of women. Current controversial issues and misconceptions revealed in such topics as sexuality, rape, obstetrical and gynecological procedures, cancer detection and treatment, menopause, and psychotherapy. Women's health movement is introduced; health care delivery system scrutinized from the point of view of the female consumer.
Cross-listed with WGS.

KNH 244. Functional Anatomy. (3)
The course emphasizes aspects of bodily structures and function among skeletal, nervous, and muscle systems. Students will learn the major bony landmarks, the structure and function of the major joints and muscles responsible for controlling human movement.
Co-requisite: KNH 244L.

KNH 244L. Functional Anatomy Laboratory. (1)
Practical examination of musculoskeletal structures of the human body.
Co-requisite: KNH 244.

KNH 245. Issues of Health & Wellness for the Young Child. (3)
This course examines contemporary issues of health and wellness for children ages three to eight years. Childhood health encompasses physical, intellectual, emotional, social, spiritual, and environmental components. The needs of all children, including those with acute and chronic illness and disability, will be promoted through a child-centered approach in a variety of educational contexts.

KNH 262. Public Health Education. (3)
Foundational principles and techniques of health education pedagogy including professional assessments preparing for the Certified Health Education Specialists credential.

KNH 272. Contemporary Perspectives on Leadership in Sport Contexts. (3)
Examination of contemporary theories of leadership as they apply to sport settings and consideration of the sociopolitical and socioenvironmental factors that may affect leadership effectiveness in the sport domain.

KNH 274. Critical Perspectives on the Body. (3)
Explores the ways in which the body is culturally created and shaped by socio-political concerns. The fields of exercise science, athletic training, health, nutrition, physical education, and sport will provide contexts to examine ideological influences on the body including those related to gender, race, class, ability, age, and sexuality.

KNH 276. Current Issues in Leisure and Sport. (3) (MPF)
This course engages students in a critical examination of leisure as negotiated practices and experiences. Issues of globalization, sustainability, social equality and social justice are explored and provide a context for students to reflect on their leisure and inform their future professional practice. IIC. CAS-C.

KNH 277. Independent Studies. (0-5)

KNH 279. African Americans in Sport. (3) (MPF)
Socio-historical analysis of participation of African Americans in sport and society, and examination of the role sport has played in African Americans' integration into the larger society. Investigates the ways the image of African Americans has been constructed and maintained through sporting practices. Sociological theories and concepts used to examine the impact of historical events, such as Reconstruction, black migration, and World Wars, on African American involvement in sport and other institutions. IIC, IIC. CAS-C.
Cross-listed with BWS/SOC.

KNH 284. Emergency Care in Athletic Training. (2)
Recognition, immediate care and emergency management of common athletic injuries and illnesses.
Prerequisite: KNH 182.
Co-requisite: KNH 183.

KNH 285. Evaluation and Assessment of Athletic Injuries to Neck, Head and Torso. (3)
Specific assessment and evaluation techniques for dealing with athletic injuries and conditions to the neck, head, and torso. Common injury mechanisms and specific test for orthopedic injuries. Injury recognition, evaluation, and referral will be emphasized throughout the course. Co-requisite: KNH 285L
Prerequisites: KNH 183, 183L, and 244.
KNH 285L. Evaluation and Assessment of Athletic Injuries to the Neck, Head, and Torso Laboratory. (1)
Sessions will provide students with opportunities to explore, practice, and master a variety of evaluation and assessment techniques under direct supervision of the course instructor.
Prerequisites: KNH 183, 183L, and 244.
Co-requisite: KNH 285.

KNH 286A. Practicum in Athletic Training I. (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner.
Prerequisites: KNH 182 and KNH 183.

KNH 286B. Practicum in Athletic Training II. (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner.
Prerequisite: KNH 286A.

KNH 286C. Practicum in Athletic Training III. (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner.
Prerequisite: KNH 286B.

KNH 286D. Practicum in Athletic Training IV. (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner.
Prerequisite: KNH 286C.

KNH 286E. Practicum in Athletic Training V. (1)
Didactic and psychomotor skill instruction of competencies and evaluation of proficiency skill in Athletic Training, which includes advanced athletic training room observation. Emphasis will be based on principles of the analytical skills used in the operational and administrative aspects of the various Athletic Training settings. Development of a professional vita and interviewing skills will also be highlighted.
Prerequisite: KNH 286D, KNH 383.

KNH 286F. Practicum in Athletic Training VI. (1)
Didactic and psychomotor skill instruction of competencies and evaluation of proficiency skill in Athletic Training, which includes advanced athletic training room observation. Emphasis will be based on principles of the analytical skills used in the management of non-orthopaedic clinical pathology and special interest intervention. Preparation for the various segments of the BOC Certification Examination will also be highlighted.
Prerequisite: KNH 286E, KNH 484.

KNH 287. Evaluation & Assessment of Athletic Injuries to Extremities. (3)
Specific assessment and evaluation techniques for dealing with athletic injuries and conditions to the extremities. Common injury mechanisms and specific tests for orthopedic injuries to joints throughout the body. Injury recognition, evaluation and referral will be emphasized throughout the course.
Prerequisite: KNH 183, KNH 183L, KNH 244.
Co-requisite: KNH287L.

KNH 287L. Evaluation and Assessment of Athletic Injuries to the Extremities, Laboratory. (1)
A laboratory course, to be taken concurrently with the Evaluation of Athletic Injuries, KNH 287 (3 credit hours). Sessions will provide students with opportunities to explore, practice and master a variety of evaluation and assessment techniques under the direct supervision of the course instructor.
Prerequisite: KNH 183, 183L, 244 and 244L.

KNH 288. Therapeutic Modalities. (3)
A comprehensive study of the use of therapeutic agents for the treatment of athletic injuries. Emphasis will be placed upon the indications, contraindications, precautions, and physiological effects of electrical stimulation, ultrasound, cryokinetics, and pharmacology.

KNH 289. Therapeutic Exercise. (3)
A comprehensive study of the application of manual therapy, neuromuscular re-education, movement and exercise as each relates to the varied and detailed goals of rehabilitation and re-conditioning for injured physically active individuals. Emphasis on pathologies and their relationship to therapeutic rehabilitation.

KNH 293. Fitness and Conditioning. (3)
Analysis of training principles and conditioning strategies for individuals of all ages. Differences between sport-specific strategies and those for health-related fitness are emphasized.

KNH 294. Games and Sport. (3)
Focuses on educational progressions for games and sports with a focus on developing appropriate curriculum for grades three to 12.

KNH 295. Research and Evaluation Methods. (3)
Techniques needed to understand and evaluate research within social work and family studies are explained. Quantitative and qualitative approaches to gathering and interpreting data are addressed.
Cross-listed with FSW 295.

KNH 303. Food Systems Management. (3)
Organization and management of food systems: study of the functions of management including human and physical resources, food service design and layout, production and fiscal controls, computer usage and labor guidelines. Prerequisites: KNH 102, KNH 103, KNH 104 and KNH 203.

KNH 304. Advanced Nutrition. (3)
This course is the study of normal nutrition and physiologic function in the human body with emphasis on interpretation and use of dietary research and data.
Prerequisites: KNH 102, CHM 141, and CHM 144.

KNH 313. Sport Economics and Finance. (3)
This course provides a comprehensive synopsis of the application of economics and financial management used in the sport organization decision-making context from both a macro and micro level.

KNH 321. National and Global Health Policy. (3)
National and Global Health Policy provides students with an overview of the U.S. health care system, its components, and the policy challenges created by its organization. The course focuses on the major health policy institutions (nationally and globally) and important issues that cut across institutions, including private insurers and the federal/state financing programs. The course will also address mental health issues, disparities in access to care, the quality of care, structure of the delivery system, the challenges of long-term care and the aging of the population, including the drivers of cost growth.

KNH 329. Psychological Perspectives on Health. (3)
Examines psychological factors involved in health. Topics include appraisal of information concerning risks to health, effects of social comparison on the experience of illness, control processes and coping with illness, emotional and cognitive factors associated with physiological responses to stress, psychosocial factors that moderate stress, including social relationships, personality, and gender, and the processes involved in attitude and behavioral change with respect to health issues.
KNH 336. Coaching Techniques and Tactics. (2)
Detailed study of sport fundamentals and teaching and coaching techniques.

KNH 337. Foundations and Fitness Training for Coaches. (3)
Overview of basic foundations of coaching applications in coaching philosophy, sport science, and sport management with in-depth analysis of sport physiology resulting in American Sport Education Program certification.

KNH 338. Psychosocial Aspects of Coaching. (3)
In-depth analysis of theory and application techniques in sport psychology to provide understanding of appropriate coaching behavior and resulting in American Sport Education Program certification.

KNH 340. Internship. (0-20)

KNH 362. Public Health Communication. (3)
Describes the foundations of professional development in health promotion through multiple perspectives: health education, health communication, health science, and health behavior. Principles of design inform the diverse role of health promoters working within an ecological framework. Applications of models and theories are practiced in personal, national, and international contexts.
Prerequisite: Junior standing.

KNH 375. Psychological Perspectives in Sport and Exercise. (3)
Examines antecedents and consequences of individual and group behavior in sport and exercise settings. Focuses on (a) effects of psychosocial factors on performance and participation in physical activity, and (b) effects of physical activity participation on personal growth and development.

KNH 377. Independent Studies. (0-5)

KNH 378. Sport, Power and Inequality. (3)
Focuses on allocation and socialization. Emphasis upon power in social structure as evidenced in class, status, gender, and race relations.

KNH 381. Biodynamics of Human Performance. (3)
Mechanics and neurophysiology of movement performance.
Co-requisite: KNH 381L.

KNH 381L. Biodynamics of Human Performance Lab. (1)
Provide students with opportunities to explore and apply concepts presented in lecture to daily activities and sport movements through hands-on experiments by using some of the measurement equipment used in the field of biomechanics.
Co-requisite: KNH 381.

KNH 382. Physical Activity & Fitness Assessment. (3)
Examination of the theory and application of various procedures, methodologies and technologies used to assess heart disease risk, physical activity, the attributes of health-related physical fitness and the administration of clinically-oriented exercise testing procedures in healthy and chronic disease populations.
Prerequisite: KNH 188.
Co-requisite: KNH 382L.

KNH 382L. Physical Activity & Health-Related Physical Fitness Assessment Laboratory. (1)
This course is designed to be taken in conjunction with KNH 382 (Lecture); KNH 382L will supplement the theoretical knowledge gained in KNH 382 (Lecture) and enable you to develop the practical skills necessary to: 1. Assess major signs or symptoms of cardiovascular, renal, pulmonary or metabolic diseases and coronary heart disease risk; 2. Risk stratify individuals for appropriate medical clearance procedures and initial physical activity/exercise intensity recommendations; 3. Develop and administer an appropriate/optimal battery of physical activity, health-related physical fitness and functional movement assessment procedures; 4. Administer clinically-oriented exercise testing procedures; and 5. Interpret and discuss all of these assessment data.
Prerequisite: KNH 188.
Co-requisite: KNH 382.

KNH 383. Operational and Administrative Aspects of Athletic Training. (2)
Planning, implementation, and supervision of an athletic training program.
Prerequisites: KNH 182 and KNH 183.

KNH 385. Contemporary Issues in Men's Health. (3)
Prerequisite: Junior standing.

KNH 392. Lifetime and Adventure Activities. (3)
Development of personal skills and teaching techniques for lifetime sports and adventure activities. Activities include tennis, golf, swimming, orienteering, ropes course, and hiking.

KNH 399C. Food and Culture in Italy. (6)
The department of Kinesiology and Health offers many fascinating study abroad programs, but there has yet to be one that focuses on food and nutrition. The purpose of this program is to facilitate student learning in nutrition, culture and food science with the focus on all foods found or originating in Italy. Traveling to the sites where certain foods (cheese, wine, and pasta to name a few) have been created and perfected, learning about how they have evolved over time, scientifically and culturally, is the main course objective. Students who have any interest in creating and enjoying food, with focus on science and nutrition, will possibly consider taking this course. This workshop is designed to meet the global perspectives requirements.

KNH 402. Critical Reflection on Practices in Health and Physical Culture. (3) (MPC)
Engages collaborative groups of students and faculty in problem-based and/or community Service-Learning initiatives related to health and the culture of physical activity. Students work in teams to critically analyze a social need or problem, and develop a reflective action plan for the community based on that need.
Prerequisite: Senior standing.

KNH 403. Professional Practices in Dietetics. (3)
Study of principles of nutrition counseling, dietetic education, and ethics. Develops skills to practice dietetics in both clinical and informal settings for culturally diverse clients.
Prerequisites: KNH 102, 104 and Junior standing.
KNH 404. Advanced Food Science. (4)
Applications of experimental methods in the preparation of food. Comparison and evaluation of food products in relation to quality and use. Research methods are emphasized. 
2 Lec. 2 Lab. 
Prerequisites: KNH 104 and minimum of 8 hours in chemistry.

KNH 409/KNH 509. Nutrition for Sports and Fitness. (3)
Study of the interrelationship between nutrition and physical fitness. Discussion of nutritional aspects for specific sports. Examination of nutrition research related to health enhancement and performance. Prerequisite: KNH 102.

KNH 411. Medical Nutrition Therapy I. (3)
Examination of physiological and metabolic changes in selected states and implications for medical nutrition therapy. Prerequisites: KNH 102 and a minimum of 6 hours chemistry.

KNH 413. Medical Nutrition Therapy II. (3)
In depth study of the principles of nutrition in more complicated disease states of the Neurological System, Respiratory System, Musculoskeletal System, and Neoplastic and Metabolic Disorders. Prerequisites: KNH 102 and a minimum of 6 hours in chemistry. Co-requisite: KNH 411.

KNH 414/KNH 514. Facilities and Event Management in Sport. (3)
A comprehensive focus on the planning, funding, and operation of sporting events and sport/recreation facilities of all types.

KNH 416/KNH 516. Sport Marketing. (3)
Provides an overview of various aspects of sport marketing, or the business of promoting and selling products and services in the sport industry.

KNH 419A. Health Education Student Teaching. (12)
Intern teaching in elementary, middle, and/or high school placements for eight weeks each with university support and school-based mentoring. Prerequisites: senior standing, KNH 245, 415, and 362 and approval of application.

KNH 420. Field Experience. (1-4; maximum 8)
Practice in field settings of instructional, diagnostic, prescriptive, and evaluative processes in physical education, health, sport studies, and athletic training. Prerequisite: departmental permission.

KNH 420A. Field Experience: Athletic Training. (1-4)

KNH 420G. Field Experience in Dietetics. (1-4)

KNH 421. Senior Seminar in Athletic Training. (2)
This course will offer students the opportunity to synthesize advanced Athletic Training theory and evidence-based practices, clinical techniques, and foundational behaviors of professional practice necessary for successful practice as an entry-level athletic trainer. Students will also have opportunities to develop an understanding of the necessary requirements for continued professional growth, and appreciate the roles and responsibilities of an athletic trainer. Seminars will include discussions on current topics pertaining to the field of athletic training.

KNH 424. Public Health Disparities Past and Current. (3)
Interpretation of the principles and patterns of public health through a historical lens. Thematic comparisons are explored from antiquity to contemporary health practices in human health and disease.

KNH 432. Nutrition Across the Life Span. (3)
This course follows the special nutrition needs of an individual throughout the lifespan. This course starts with a review of the specific assays and examinations to determine good nutrition health. The healthy adult is used as a starting point in the lifespan. The course highlights the special needs of pregnancy, infancy, young child, older child, “tweens and teens” and the adult. There are discussions on special considerations such as disordered eating, diabetes, obesity, athletes and performance nutrition. Finally there is nutrition for the aging and aged. Prerequisite: KNH 102.

KNH 438/KNH 538. Principles of Effective Coaching. (3)
Examination of the research and theory on the effects of different types of coaching behaviors and practices on the performance and psychosocial development of athletes and evaluation of the contextual (socioenvironmental and sociocultural) factors that may affect the coach-athlete interaction across different types of sport settings.

KNH 441/KNH 541. Environmental Public Health. (3)
This course is a study of the effects of human-made and natural physical, biological, and chemical agents on human health. The course explores the interaction of population health, demographics, and environmental determinants of disease. The course covers the basic principles of epidemiology, exposure, risk characterization, disease pathogenesis, and diagnostic testing, as well as the public works and regulatory controls used to limit exposure. CAS-D. Cross-listed with IES 441/IES 541.

KNH 442/KNH 542. Strength Training and Conditioning. (3)
This course critically examines the physiological principles and current research underlying the design of strength training and conditioning programs aimed at improving health and performance of athletes and non-athletes. Prerequisite: junior or senior standing.

KNH 447/KNH 547. Sport Pedagogy for Coaches and Practitioners. (3)
This course describes models of instruction for coaches and practitioners with the application of technical teaching styles, strategies, and skills in sport. Students will focus on the analysis of the teaching-learning process and the use of appropriate coaching/teaching methods and assessment for all learners.

KNH 448/KNH 548. Global Sport Perspectives. (3) (MPF)
This course provides students with a global perspective about sport, including research and professional practice information, across diverse cultural and global contexts. Students are provided opportunities to examine the global forces influencing sport participation, to critically analyze the meaning of sport for others and oneself, and to rethink complex issues and events in sport. IIIIB.

KNH 453/KNH 553. Seminar in Kinesiology and Health. (1-4)
Advanced study of current developments in technical and organizational aspects of activities within these fields. IC. Prerequisite: junior or graduate standing.

KNH 4536. Cultural Persp of South Amer. (3)

KNH 455. Comparative Exercise Physiology. (3)
Study of muscular, cardiovascular and pulmonary systems in a diversity of organisms (vertebrates and invertebrates). Focus on activity and locomotion with emphasis on comparative methods. Prerequisite: BIO 305 or KNH 468/KNH 568; or permission of instructor. Cross-listed with BIO.
KNH 462/KNH 562. Public Health Planning and Evaluation. (3)
Introduction to current models of health education programming and the issues and trends therein. Provides knowledge and skills needed to plan, implement, and evaluate health education programs.
Prerequisite: KNH 362.

KNH 468/KNH 568. Physiology of Exercise and Physical Activity. (3)
468 Physiology of Exercise and Physical Activity (3) Critically examines the physiological processes and mechanisms thought to underlie the relationships between physical activity, exercise, and health.
Prerequisite: (BIO 161 or BIO 305) and KNH 188. Co-requisite: KNH 468L/KNH 568L.

KNH 468L/KNH 568L. Physiology of Exercise and Physical Activity Laboratory. (1)
468L Physiology of Exercise and Physical Activity Laboratory (1) Allows engagement in fundamental activities and skills involved in exercise physiology assessment. Co-requisite: KNH 184, KNH 188 and KNH 244 (for KNH 468/KNH 568), and graduate standing for KNH 568.

KNH 471/KNH 571. Sport, Leisure, and Aging. (3)
Critical analysis of leisure and sport as contexts for and practices of adult development and aging.
Prerequisite: junior or graduate standing.

KNH 472/KNH 572. Sport Administration. (3)
Provides relevant theoretical and practical application of management strategies and administrative principles within sport organizations. Offers an overview of organizational structures, functions, and policies of local, regional, national, and international sport governing bodies.
Prerequisite: junior or graduate standing to enroll in this course (or permission of course instructor).

KNH 473. Children and Youth in Sport. (3)
Influences on and consequences of the involvements of children and youth in sport.
Prerequisite: junior standing.

KNH 475/KNH 575. Women, Gender Relations, and Sport. (3)
Explores the meanings of women's participation in sport and physical activity using sociological, feminist, and cultural studies perspectives. Special consideration given to the ideological significance of sport in U.S. culture and ways in which sporting women accept and challenge contemporary gender relations. IC.
Prerequisite: junior or graduate standing. Cross-listed with WGS.

KNH 477. Independent Studies. (0-5)

KNH 480/KNH 580. Mechanics of Musculoskeletal Injury. (3)
In this class, we learn how various human and animal biological materials such as muscle, tendon, ligament, bone, cartilage, skin and other tissues develop. We then examine how mechanical loading can cause adaptation and injury of these biological materials.
Prerequisite: KNH 244.

KNH 481. Life at Altitude. (6; maximum 12)
During this course we will visit Nepal/Tibet and trek through the Himalayas to Mt Everest Base Camp. We will perform physiological tests before and during the workshop to assess the effects of altitude exposure on the body. We will live among a group of Sherpa and learn about their culture including their religion, role of the family, health care education etc. All majors are welcome. No trekking experience necessary.

KNH 482/KNH 582. Exercise Prescription: Healthy Individuals & Individuals with Chronic Diseases/Disorders. (3)
In a case-study format, students will develop evidence-based physical activity/exercise recommendations (exercise prescriptions) for healthy individuals. Additionally, this course provides in-depth information about chronic diseases, disorders and disabilities that are commonplace and can be managed with exercise and physical activity. Content is directed towards understanding of specific physiological and pathophysiological characteristics associated with common chronic diseases, disorders and disabilities, its effect on the exercise response and adaptations, the effects of commonly used medications on the exercise response, and unique circumstances associated with specific chronic diseases/disorders.
The development of specific physical activity/exercise prescriptions (recommendations & guidance) is directed for individuals with the following: cardiovascular diseases, pulmonary diseases, metabolic diseases, immunological and hematological diseases, orthopedic diseases and disabilities, neuromuscular disorders, and cognitive, psychological, and sensory disorders.
Prerequisite: KNH 382 and KNH 382L.

KNH 483/KNH 583. Advanced Motor Control and Learning. (3)
This course provides advanced-level examination of the behavioral neuroscience of human action. Emphasis is placed on understanding the sensorimotor control of stance and locomotion, reflex circuitry and voluntary movement, visually-guided actions and programmed movement, as well as the process by which humans benefit from experience so that future behavior is better adapted to the environment.
Prerequisite: must have had an introductory course in motor control and learning such as KNH 184 or permission of instructor.

KNH 484. General Medical Conditions and Pharmacology for Athletic Training. (3)
Techniques of physical appraisal of selected body systems and evaluation techniques for distinguishing normal from abnormal conditions, with special emphasis on the most common medical conditions that affect athletic participation. Exploration of medications commonly encountered in the practice of athletic training, including categories of drugs, their effects and precautions of how various drugs affect the patient response to activity.
Prerequisites: KNH 285 and 287.

KNH 495. Practicum in Sport Leadership and Management. (3) (MPC)
This course provides a setting for students to integrate practical field experiences with their sport leadership and management coursework and liberal arts foundation. Students complete a field-based experience in management, coaching, sport journalism, or sport media, and attend intermittent class meetings to discuss and critically analyze these professional practice experiences. Professional development skills are also addressed, such as resume writing, interviewing, professional networking, and professional standards and expectations within the field.
Prerequisite: junior standing or higher. Co-requisite: KNH 212 and KNH 272.

KNH 499Q. Life in Iceland and Greenland. (1-3)
Come visit the land of Fire and Ice. The unique geography of Iceland and Greenland will allow us to see both glaciers and volcanoes. During the day we will participate in dog sledding, snow shoeing, walk through volcano caves and see the spectacular scenery of both Iceland and Greenland. During the night we will check more stars than most people will ever see and hope for a show of the northern lights.
KNH 553A. Seminar: Health, Physical Education, Recreation, and Athletics. (3)
Advanced study of current developments in technical and organizational aspects of activities within these fields.
Prerequisite: junior or graduate standing.

KNH 600. Independent Reading. (1-4)
Prerequisite: permission of department chair and instructor.

KNH 610. Internship in Exercise, Health, and Sport Delivery Systems. (1-4)
Supervised clinical experiences in sport and health agencies coupled with directed readings.

KNH 611. Behavioral Approaches to Health Promotion and Education. (3)
Analysis of research and theory in health promotion, especially behavioral approaches to disease prevention.

KNH 612. Theoretical Foundations of Health Promotion and Education. (3)
Focuses on the role of theory in shaping research and practice in health promotion and education. Includes a historical perspective to investigate the interaction between health education and applied social sciences.

KNH 613. Health Communication & Education. (3)
Introduces health communication theory and processes for different audiences within the social ecological model. Explores evidence-based strategies when educating for health, including design analysis of health literacy and media literacy.

KNH 620. Research Problems. (1-4)
Prerequisite: permission of department chair and instructor.

KNH 621. Research Foundations in Kinesiology and Health. (3)
Provides foundational knowledge and skills regarding the research process in kinesiology and health, including a critical analysis of research traditions and practices in the field.

KNH 623. Qualitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields. (3)
Course provides overview of the methodological procedures used by researchers in the exercise, health, and sport studies fields that adhere to an interpretive, qualitatively-based research approach. Course topics include research methods, data collection issues, and basic analysis procedures.
Prerequisites: Graduate Status and KNH 621.

KNH 632. Psychological Foundations of Sport. (3)
Examines theory and research related to individual difference factors (e.g., personality, motivation, anxiety, confidence) that affect cognitions, affect, behavior and performance in sport.

KNH 633. Psychological Interventions in Sport. (3)
Examines theory, research, and professional practice related to psychological interventions in sport. Focuses on the use of educational psychological interventions to facilitate personal development and performance of athletes by teaching them strategies and techniques to enhance mental skills.

KNH 634. Social Psychology of Sport and Exercise. (3)
Examination and analysis of theory and research relating to social psychological factors and group dynamics affecting sport and exercise behavior.

KNH 635. Strategic Management of Sport Organizations. (3)
This course provides students with specific knowledge and skills related to the strategic management of sport organizations. The primary focus of this class is the development of strategy within organizations; this includes perspectives and materials deriving from a variety of subdisciplines related to strategic thinking and decision-making, such as behavioral economics, organizational theory, game theory, and marketing. By integrating the literatures from outside of sport with sport-specific theory, students will assemble short and long-term strategic plans for organizations within the sport industry. Ultimately, this course will provide students the theoretical and analytical tools to both design strategic business plans for sport organizations and to evaluate existing strategies for sport organizations.

KNH 640. Internship. (0-12; maximum 12)

KNH 654. Physical Activity Motivation. (3)
This broad survey course examines physical activity from primarily a social psychological perspective. The focus is on the role physical activity plays in people's health and wellbeing as well as the psychological and social factors that influence their physical activity participation. The philosophy and effectiveness of varying types of physical activity interventions, programs, and strategies are also examined.

KNH 668. Advanced Physiology and Biophysics of Human Activity. (3)
Advanced level study of the physiological responses and adaptations to physical activity. Heavy emphasis is placed on the nature of control mechanisms and their integration across organ systems.
Prerequisite: KNH 468/KNH 568 or its equivalent.

KNH 673. Developmental Perspectives on Youth Sport Participation. (3)
A multidisciplinary developmental analysis of children and youth that focuses on the description and explanation of biological, psychological, and social aspects that relate to sport participation.

KNH 676. Cultural Studies of Sport. (3)
Critically interrogates US sport as an important socio-cultural institution and as a site for the production, reproduction and contestation of gender, race and class ideologies.

KNH 677. Independent Studies. (0-5)

KNH 685. Exercise, Age, and Health. (3)
Examination of research on aspects of the relationship among exercise, health and selected disease processes.

KNH 688. Advanced Biomechanics. (3)
Examines biomechanical concepts and applications using math, physics, and physiology. Focuses on the application of force to the human body and how the human body adapts/reacts to these forces. Involves use of force plates, electromyography, and computer based motion analysis.

KNH 699H. Life in Iceland & Greenland. (1)
Come visit the land of Fire and Ice. The unique geography of Iceland and Greenland will allow us to see both glaciers and volcanoes. During the day we will participate in dog sledding, snow shoeing, walk through volcano caves and see the spectacular scenery of both Iceland and Greenland. During the night we will check more stars than most people will ever see and hope for a show of the northern lights. This 9 day trip is the perfect way to spend spring break.
KNH 700. Thesis, M.A.. (1-10; maximum 10)
KNH 704. Non-Thesis Project. (0-12; maximum 12)