Department of Kinesiology and Nutrition

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Administration:
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Academic Advisors, Abby Nobili, Whitney Harris, Jo Wagner

The Department of Kinesiology and Nutrition offers programs leading to the Bachelor of Science degree in either Kinesiology or Nutrition.

BS in Kinesiology
The undergraduate program in kinesiology offers a common core in the foundations of kinesiology (human structure, function, and movement) with elective options preparing students for immediate employment or advanced study in numerous areas of the health sciences. In addition to the science of kinesiology, the program emphasizes competencies such as critical thinking and reasoning, communication, professionalism, and leadership, equipping graduates with important and transferable employment skills.

Kinesiology courses are taught by nationally and globally recognized leaders in their areas of teaching, research, and service who emphasize translating science into practice through hands-on learning, independent study, and experiential learning. Through this combined basic science learning with practical application of scientific principles, students are prepared for careers in a variety of health-related fields, such as health and wellness coaching, health-related business operations or sales, personal training, and strength and conditioning. Our graduates also have a strong foundation and necessary prerequisites to pursue further schooling in health-related fields such as athletic training, cardiac rehabilitation, dentistry, medicine, nursing, occupational therapy, physical therapy, sport and exercise psychology, research, and more.

Transfer Admission Requirements
Students seeking admission to the department as a transfer student must meet the entrance requirements that are specified for transfer students. The minimum recommended transfer grade point average for admission is 2.50/4.00. No more than 60 semester hours (90 quarter hours) of credit may be accepted as transfer work from a two-year college. Complete transcripts from all postsecondary institutions must be submitted in order to be considered for admission. See the Office of Admission Transfer Guide for more information about transfer admission requirements.

BS in Nutrition
The Nutrition Science program, an accredited Didactic Program in Dietetics (DPD), provides students with the Accreditation Council for Education in Nutrition and Dietetics (ACEND) required didactic course work. Upon completion of the Nutrition Science Program, students are eligible to apply for an accredited dietetic internship at another institution. After successfully completing a dietetic internship, students are eligible to sit for the Registration Examination for Dietitians. This program is also intended for students who do not wish to become registered dietitians, but instead plan to pursue advanced degrees in nutritional sciences, public health, allied health, or a professional degree in medicine. The Nutrition Science concentration prepares students for a future career as a registered dietitian, as well as for graduate study in nutrition, medicine, public health, other allied health fields, and dentistry.

Dietitians provide nutritional care to people in health and disease throughout the life cycle in accordance with their nutritional requirements and food habits. Dietitians’ activities include the provision of direct inpatient and outpatient services as well as community program planning and evaluation, clinical protocol development, food service management, and research. Therefore, a dietitian must be knowledgeable in the biological and physical sciences, psychology, sociology, education, and management and must have expertise in food habits, food composition, food service, science of food and nutrition, energy and nutrient needs, program development and evaluation, and research methods. Dietitians counsel clients, as well as work with other members of the healthcare team in providing nutritional care in the clinical setting, and work with consumers in wellness programs and community agencies. Management of personnel, budgets, food operations, and consumer-oriented services in the food or healthcare industry are other areas for dietitians. The research and teaching is focused on the sciences of nutrition, physiology, biochemistry, and molecular biology and the application of knowledge in these disciplines to the maintenance of health and well-being of humans throughout their lives. The curriculum offers a wide range of courses on the nutritional, epidemiological, and behavioral aspects of human diseases, a broad perspective on human biology (including cultural factors), and a strong clinical orientation.

The Nutrition Science program is currently granted initial accreditation by The Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics as a Didactic Program in Dietetics (DPD).

Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
phone: (312) 899-0040, ext. 5400
http://www.eatright.org

First Year Admission
New first year applicants interested in pursuing the Bachelor of Science in Nutrition are eligible to apply to the Nutrition Science program (concentration) through the Department of Kinesiology and Nutrition. Students must meet the general UIC entrance requirements. A high school curriculum that emphasizes math and the natural sciences (biology, anatomy and physiology, chemistry and physics) gives the student the best chance for success in nutrition. The program will accept UIC and non-UIC transfer students. Prerequisites for ACEND accredited program, such as DPD or CP, may complete their prerequisite at UIC as Nutrition Science majors.

Transfer Admission Requirements
Students seeking admission to the Bachelor of Science in Nutrition, Nutrition Sciences program (concentration) must meet the minimum GPA
Depending on the length and nature of the research experience, the laboratory on a project designed by the student and faculty member. To receive a Helen Barton Summer Research Scholarship, recipients demonstrated an interest in the research of Kinesiology faculty may apply. Promising students of sophomore standing or above who have faculty mentor.

Undergraduate Experiential Learning
Undergraduate students are required to participate in Experiential Learning. A guided research project, independent study, undergraduate teaching experience, internship, or study abroad course can be one of the most valuable experiences of a college education. The Department of Kinesiology and Nutrition offers the following opportunities:

Special Project and Presentation
KN 396 is designed to be a flexible course allowing juniors and seniors to gain experience in special projects in Kinesiology-related areas. Taken for 1–3 hours, KN 396 requires close interaction with one or more faculty members over the course of one semester. Students will have the opportunity to present their work in KN 397.

Internship Opportunity
Students with Junior or Senior standing who have an interest in expanding their classroom learning experience into a professional career environment are encouraged to apply for the Internship Program (KN 393). Over the course of the semester, each student is required to obtain a minimum of 300 hours of hands-on learning at their designated internship site, earning 6 credit hours for the semester. A wide variety of internship opportunities within and outside of the Chicagoland area are available, and are designed to meet the specific career interests of each student. Students should inquire about the internship application process one to two semesters prior to the term during which they would like to intern.

Undergraduate Research and Presentation
The Undergraduate Research and Research Presentation sequence is offered as a capstone course to students interested in pursuing advanced study or research careers in many subdisciplines of Kinesiology. Students complete the two-semester sequence by taking KN 398 and KN 399. Typically, the first semester is devoted to developing a topic, obtaining any necessary approvals for the study (e.g., Institutional Review Board), and collecting data. The second semester consists of continued implementation of the project, writing, and presenting the results. Students can earn up to four semester hours of graduation credit. All Undergraduate Research experiences require a faculty mentor.

Helen Barton Summer Research Scholarship
Promising students of sophomore standing or above who have demonstrated an interest in the research of Kinesiology faculty may apply to receive a Helen Barton Summer Research Scholarship. Recipients of the award will work closely with a faculty member in a Kinesiology laboratory on a project designed by the student and faculty member. Depending on the length and nature of the research experience, the scholarship recipient may have an opportunity to earn graduate credit. If the student and faculty member desire, the work accomplished during this experience may be later developed into the student’s Undergraduate Research and Research Presentation capstone experience.

Study Abroad
The Department of Kinesiology and Nutrition offers the opportunities to study abroad. These programs do not interrupt enrollment residence and with department and college approval, students may apply credit earned in the program toward the degree. More detailed information on these programs is available from the individual department. Extensive study abroad opportunities are offered by the UIC Study Abroad Office. For more information, please visit the Study Abroad website.

Undergraduate Teaching Assistant
Each semester, undergraduate students have the opportunity to apply to be an undergraduate teaching assistant (UTA) for a selection of courses in Kinesiology. This is an excellent opportunity to enhance instructional skills and knowledge in areas where students have performed well. UTAs serve as true assistants to the faculty member leading the course and their peers. If selected to be an UTA, the student will obtain credit for participating and register for KN 493.

Professional Certifications
Courses have been developed to assist students in becoming certified as health and fitness professionals by organizations such as the American College of Sports Medicine, National Strength and Conditioning Association, National Academy of Sports Medicine, and the American Council on Exercise. For specific information on certification pathways, please speak with Kinesiology faculty and advisors as well as see each organization’s website.

Degree Programs
- BS in Kinesiology
- BS in Nutrition, Nutrition Science Concentration

Minors
- Minor in Food Science
- Minor in Kinesiology
- Minor in Nutrition

Human Nutrition Courses
HN 100. Introduction to Nutrition: New Student Seminar. 2 hours. Overview of nutrition emphasizing the key concepts of the discipline and the diverse range of careers in the field. Focuses on professional preparation.
HN 110. Foods. 3 hours. The principles of food components, component interactions, food selection, preparation and service. Course Information: Field trip required at a nominal fee. Class Schedule Information: To be properly registered, students must enroll in one Laboratory-Discussion and one Lecture.
HN 190. Introduction to Dietetics. 1 hour. Overview of the dietetics profession: career options, professional development (dietetics portfolio), code of ethics, standards of practice, Academy of Nutrition and Dietetics position papers, the legislative process, and professional resources. Course Information: Prerequisite(s): Junior standing or above.
HN 196. Nutrition. 3 hours.
Provides a foundation in the basic principles of human nutrition in maintaining and promoting health through good dietary choices. Natural World - No Lab course.

HN 201. Essentials of Nutrition, Physical Activity and Health Assessment. 3 hours.
Evidence-based tools and resources for using food and physical activity to maintain health and prevent chronic disease. Course Information: Credit is not given for HN 201 if the student has credit in HN 302. Prerequisite(s): HN 196; and approval of the department.

HN 202. Culture and Food. 2 hours.
Provides a perspective on factors that affect the development of food habits, similarities and differences across cultures, and how the use of foods provides a window to multiculturalism. Course Information: Previously listed as HN 302. World Cultures course.

HN 203. Culture and Food Lab. 2 hours.
Practical application of accurately preparing, presenting, and modifying cultural specific foods. Course Information: Field trip required at a nominal fee. Recommended background: Credit or concurrent registration in HN 202.

HN 296. Nutrition and Physical Activity. 3 hours.
Integrates the fundamental principles of nutrition and physical activity to provide students with knowledge of proper nutrition for improving health, fitness and performance. Course Information: Prerequisite(s): HN 196 or consent of the instructor.

HN 300. Science of Foods. 3 hours.
Scientific aspects of food and its preparation with emphasis on clinical applications. Course Information: Prerequisite(s): HN 110 or the equivalent or consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Laboratory-Discussion and one Lecture.

HN 302. Nutritional Assessment. 3 hours.
In-depth training of nutrition assessment tools that Registered Dietitians will use for measuring dietary intake and anthropometric measurements in different populations and in different settings. Course Information: Previously listed as HN 200. Credit is not given for HN 302 if the student has credit in HN 200. Prerequisite(s): HN 196.

HN 306. Nutrition Education. 3 hours.
Study of theoretical and applied strategies for instructional planning and assessment that are applied to both group and individual nutrition education. Prerequisite(s): HN 302 or HN 201; or approval of the department.

HN 307. Human Nutrition and Metabolism. 3 hours.
Human nutrient requirements and metabolism of carbohydrates, lipids, proteins, vitamins, minerals and non-nutritive substances found in foods. Course Information: Prerequisite(s): HN 196 and one semester of college level general chemistry; or consent of the instructor.

HN 308. Nutrition Science I. 3 hours.
Metabolism, dietary regulation and requirements for energy, protein, fat and carbohydrates, including issues of under/over nutrition and regulation of food intake. Course Information: Prerequisite(s): HN 196 and Credit or concurrent registration in CHEM 352 and Credit or concurrent registration in KN 252; and approval of the department.

HN 309. Nutrition Science II. 3 hours.
Continuation of HN 308. Metabolism, dietary regulation and requirements for micronutrients such as vitamins and minerals, including issues of under/over nutrition and regulation of food intake. Course Information: Prerequisite(s): HN 308.

HN 311. Nutrition During the Life Cycle. 3 hours.
Principles of nutrition through the life cycle, including weight management. Course Information: Prerequisite(s): HN 307; or HN 308 and HN 309.

HN 313. Introduction to Community Nutrition. 3 hours.
Assessment, planning and evaluation of community nutrition programs using a systems approach. Course Information: Previously listed as HN 413.

HN 318. Genetic, Molecular and Cellular Mechanisms of Chronic Diseases. 3 hours.
Addresses the most important mechanisms of pathogenesis, with an emphasis on chronic conditions. The role of inflammation and of genetic variability in modulating disease susceptibility will be addressed in detail. Course Information: Prerequisite(s): Grade of C or better in KN 251; and approval of the department.

HN 320. Clinical Nutrition I. 3 hours.
Principles of nutrition, biochemistry, physiology, and pathology related to the management of starvation, obesity and gastrointestinal diseases, cardiovascular disease, and diabetes. Course Information: Prerequisite(s): HN 308; and approval of the department.

HN 330. Quantity Food Production. 3 hours.
Lecture/discussion on kitchen layout and design, menu planning, food procurement, storage, production and service. Course Information: Field trips required at a nominal fee. Prerequisite(s): HN 110; or approval of the department.

HN 332. Food Service Management. 2 hours.
Application of management principles to food service system functions. Course Information: Prerequisite(s): HN 110.

HN 355. Supervised Practice I. 1-4 hours.
A supervised practicum in a professional setting to prepare for entry-level dietetics practice. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated to a maximum of 8 hours. Prerequisite(s): Grade of C or better in HN 320 and senior standing; and approval of the department.

HN 396. Independent Undergraduate Study in Human Nutrition. 1-4 hours.
Study in selected areas of human nutrition carried out under the direction of a faculty member. Exact nature of the project is determined by the selected area of interest. Course Information: Prerequisite(s): Consent of the instructor.

HN 405. Food as Medicine I: Cooking for Healing and Wellness. 2 hours.
A new disease state or medical diet will be covered each week and students will learn how to plan menus and prepare foods that are appropriate for each diet. Course Information: Prerequisite(s): HN 110.

HN 406. Food as Medicine II. 2 hours.
A wellness related diet, a disease state, or a medical topic will be covered each week. Students will learn how to plan menus and prepare foods that are appropriate to each diet. Course Information: Prerequisite(s): HN 110; and approval of the department This course is designed for undergraduate and graduate students majoring in nutrition.

HN 407. Writing Process in Nutrition. 2 hours.
Approaches writing as an instrument of thought and a tool of persuasion. Students will learn to effectively communicate nutrition information through writing. Course Information: May be repeated for credit. Prerequisite(s): ENGL 160 and ENGL 161; and junior standing or above; and approval of the department. Recommended Background: HN 196 and HN 110.
HN 410. Food Microbiology. 4 hours.
Discusses food-borne pathogens, toxins, and contaminants. Covers spoilage, pathogenic and beneficial microorganisms in the food industry and microbiological techniques for isolating and quantifying microorganisms of public health concern. Course Information: Prerequisite(s): BIOS 350 and BIOS 351; and approval of the department. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Laboratory.

HN 411. Food Analysis. 4 hours.
Principles and application of the chemical, physical and instrumental methods used to determine the constituents of foods. Course Information: Prerequisite(s): CHEM 222 and HN 300; and approval of the department. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Laboratory.

HN 412. Sensory Evaluation for Foods and Beverages. 2 hours.
Teaches the physiological and psychological basis of human subjects, chemistry of aroma and taste, basic sensory methodologies in food evaluation and analysis and interpretation of sensory data. Course Information: Prerequisite(s): Approval of the Department.

HN 413. Food Product Development. 3 hours.
Principles of food product development: target market evaluation, concept development and presentation, formulation, manufacturing, packaging, product costs, pricing, safety and marketing. Course Information: Prerequisite(s): HN 300; and approval of the department.

HN 414. Fermented Foods and Beverages. 2 hours.
Covers the health benefits and the chemistry and microbiology in making fermented foods and beverages. Course Information: Prerequisite(s): Approval of the Department.

HN 420. Clinical Nutrition II. 3 hours.
Principles of nutrition, biochemistry, physiology, pathology, education, and psychology related to management of selected diseases (diabetes, cancer, HIV/AIDS, renal diseases, and metabolic stress). Course Information: Prerequisite(s): HN 308; or approval of the department.

KN 100. Kinesiology and Nutrition: First Year Seminar. 2 hours.
Overview of kinesiology and nutrition emphasizing the key concepts of the sub-disciplines and diverse range of careers in the field. Focuses on academic and professional preparation given the integrative nature of the discipline and current trends.

KN 110. Life Skills for Student Athletes. 2 hours.
Prepares student-athletes, and those working with student-athletes, to thrive as leaders in their community and workplace, be productive members of society, and contribute value to their own life and to those with whom they interact.

HN 422. Clinical Nutrition III. 2 hours.
Principles of nutrition, biochemistry, physiology, and pathology related to the management of critically ill patients. Course Information: Prerequisite(s): HN 309 and HN 420; or consent of the instructor.

HN 423. Nutrition Counseling. 3 hours.
Teaches theory and skill development for effective nutrition interviewing and counseling. Experiential opportunities to practice various counseling approaches are provided. Prerequisite(s): HN 302 or HN 201; or approval of the department.

KN 130. Stress Management. 3 hours.
Introduction to stress and its effects on health, with experiential application of coping strategies and relaxation techniques. Addresses conventional and innovative approaches, with a special emphasis on holistic health and wellness.

KN 136. Techniques and Principles of Exercise. 3 hours.
Teaches students how to identify, describe, execute, and progress common resistance and aerobic exercises for optimal health, athletic performance and overall fitness. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 137. Personal Fitness. 1 hour.
Evaluation of each student's level of fitness, followed by participation in a group exercise program. Variable training modes. Discussion on fitness-related topics.

KN 150. The Healthy Human. 3 hours.
Using the core dimensions of wellness, this course prepares students to live healthy, proactive lifestyles by creating a personal framework to serve them in their daily lives. Emphasis will be on the holistic integration of body, mind, and spirit. Individual and Society course.

KN 151. Success Strategies for Anatomy and Physiology. 1 hour.
Teaches students to engage in effective study and learning strategies, with an emphasis on metacognition, for success in A&P. These metacognitive skills are transferable to other courses in the student's higher education experience. Course Information: Corequisites: Requires concurrent registration in KN 251 or KN 253.

KN 152. Introduction to Exercise Physiology and Health. 3 hours.
Provides students with the fundamental knowledge of the structure and function of the human body, particularly as it relates to the interaction between physical activity and health and disease. Course Information: Recommended background: High school chemistry, biology and/or physiology. Class Schedule Information: To be properly registered, students must enroll in one Laboratory-Discussion and one Lecture-Discussion. Natural World - With Lab course.
KN 194. Special Topics in Kinesiology. 1-3 hours.
Participation and study in selected activities in Kinesiology. Course Information: May be repeated if topics vary. Students may register in more than one section per term.

KN 200. Statistical Methods. 3 hours.
How to apply, interpret, and think critically about scientific data from the biological and health sciences. Extensive hands-on experience working with data to illustrate concepts and develop skills for decision making and analytical thinking. Course Information: Prerequisite(s): MATH 121. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Discussion.

KN 237. Sport and Exercise Psychology. 3 hours.
The psychological basis for exercise and sport motivation and behavior. Focus on application of theoretical models of exercise and sport and psychological strategies to improve participation in exercise and improve sport performance. Course Information: Previously listed as KN 335. Credit is not given for KN 237 if the student has credit in KN 335.

KN 243. Exercise Assessment. 3 hours.
This introductory-level course addresses screening and assesses fitness components necessary to assess posture, body composition, strength, flexibility and cardio-respiratory endurance. Course Information: Extensive use of instrumentation. Prerequisite(s): KN 136. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture-Discussion.

KN 245. Exercise Programming and Instruction. 3 hours.
Emphasizes how to develop and instruct individual and group exercise programs utilizing a variety of exercise modalities. Personal training, small group instruction, and group exercise techniques are included in both lecture and lab experiences. Course Information: Credit is not given for KN 245 if the student has credit in KN 240. Prerequisite(s): KN 136 and KN 243. Course Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 246. Group Exercise Instruction. 2 hours.
Focuses on group fitness fundamentals for apparently healthy exercisers. Emphasis will be on proper exercise instruction, cuing, class organization, safety, and effective exercise planning for a variety of different class types. Course Information: Prerequisite(s): KN 245. Course Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture-Discussion.

KN 251. Human Physiological Anatomy I. 5 hours.
The structure and function of mammalian cells and tissues and human skeletal, muscular, and nervous systems are discussed. Integrating the functions of the various systems is emphasized. Course Information: 5 hours. Extensive computer use required. Prerequisite(s): Grade of C or better in BIOS 110; Cumulative GPA of at least 2.5. Class Schedule Information: To be properly registered, students must enroll in one Lecture, and one Discussion, and one Laboratory.

KN 252. Human Physiological Anatomy II. 5 hours.
The structure and function of the human endocrine, circulatory, respiratory, digestive, sensory, and reproductive systems are discussed. Integrating the functions of the various systems is emphasized. Course Information: 5 hours. Extensive computer use required. Prerequisite(s): KN 251. Class Schedule Information: To be properly registered, students must enroll in one Lecture, and one Discussion, and one Laboratory.

KN 253. Human Anatomy and Physiology I. 4 hours.
The structure and function of mammalian cells and tissues and human skeletal, muscular and nervous systems are discussed. Integrating the functions of the various systems is emphasized. Course Information: Credit is not given for KN 253 if the student has credit for KN 251. Extensive computer use required. Prerequisite(s): Grade of C or better in BIOS 110; Cumulative GPA of at least 2.5.

KN 254. Human Anatomy and Physiology II. 4 hours.
The structure and function of the human endocrine, circulatory, respiratory, digestive, sensory, and reproductive systems. Emphasis on integrating the functions of the various systems. Course Information: Credit is not given for KN 254 if the student has credit for KN 252. Extensive computer use required. Prerequisite(s): KN 253; or KN 251.

KN 255. Anatomy Laboratory I. 1 hour.
The first in a series of two courses covering the lab portion of anatomy of the human body. Course Information: Credit is not given for KN 255 if the student has credit for KN 251. Prerequisite(s): Credit or concurrent registration in KN 253 or the equivalent.

KN 256. Anatomy Laboratory II. 1 hour.
The second in a series of two courses covering the lab portion of anatomy of the human body. Course Information: No credit given if the student has credit in KN 252. Prerequisite(s): Credit or concurrent registration in KN 254 or the equivalent.

KN 261. Applied Musculoskeletal Anatomy. 3 hours.
Designed to provide a foundational knowledge base regarding the structure of the human musculoskeletal system as it relates to movement and function. Course Information: Prerequisite(s): KN 251 or KN 253.

KN 262. Training Methods for Core Stability. 3 hours.
Students learn methods to assess and program core stability for a variety of populations in the contexts of posture, endurance, strength and flexibility. Extensive use of Pilates equipment and small apparatus. Prerequisite(s): Junior standing or above; and consent of the instructor. Recommended background: KN 261. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 294. Special Topics in Kinesiology. 1-3 hours.
Selected topics in Kinesiology. Course Information: May be repeated if topics vary. Students may register in more than one section per term.

KN 299. Study Abroad in Kinesiology and Nutrition. 0-18 hours.
Provides credit for study abroad. Student's proposal must have prior approval of the student's major program or department. Final determination of credit is made on the student's completion of the work. Course Information: May be repeated for a maximum of 36 hours.

KN 300. Research Methods and Inquiry in Kinesiology. 3 hours.
Introduces undergraduate students to inquiry processes and research methods applied in the field of Kinesiology. Course Information: Recommended background: KN 200 or PSCH 242.

KN 331. Sport and Exercise Injury Management. 3 hours.
Fundamental management of exercise and sport related injuries and conditions. Course Information: Prerequisite(s): KN 261. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture-Discussion.
KN 336. Health Coaching. 3 hours.
Behavior change approaches with diverse patients/clients using foundational health coaching and motivational principles. Students use communication, coaching and comportment skills to help guide others in the pursuit of healthy lifestyle habits. Course Information: Previously listed as KN 436. Credit is not given for KN 336 if the student has credit for KN 436. Prerequisite(s): KN 237.

KN 337. Psychology of Injury and Recovery. 3 hours.
Introduces the psychological, social, and emotional experiences associated with the acquisition and experience of physical injuries. Course Information: Prerequisite(s): KN 237.

KN 338. Special Topics in Kinesiology. 1-3 hours.
Flexible course structure designed to accommodate additional topics not covered in current course offerings. Topic examples include muscle physiology, psychology of physical activity, biomechanics and motor control of special populations. Course Information: May be repeated if topics vary. Students may register in more than one section per term. Prerequisite(s): Sophomore standing or above; and consent of the instructor.

KN 339. Undergraduate Research Presentation. 1 hour.
Students will prepare and present their experiential learning project in a public forum. Emphasis will be on building the competencies of scientific communication and professionalism. Course Information: Prerequisite(s): KN 396.

KN 340. Entrepreneurship for Applied Health Professionals. 3 hours.
Relates the theory, principles and practices applied in entrepreneurial start-up settings in healthcare and human performance professions. Course Information: Prerequisite(s): KN 398.

KN 341. Lower Extremity Overuse Injury. 3 hours.
Critical review of the literature related to lower extremity overuse injury; current practices and research gaps in the prevention and treatment of these injuries; movement assessment and corrective exercise to prevent and care of these injuries. Course Information: Prerequisite(s): KN 261 and KN 331. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 342. Foundations of Positive Psychology. 3 hours.
Introduces students to positive psychology and the opportunities for human development channeling positive thoughts, emotions and behaviors to achieve life, relationships and legacy goals. Course Information: Prerequisite(s): Acceptance into the concentration in Performance, Sport and Exercise Psychology within the MS in Kinesiology or consent of the instructor.

KN 343. Undergraduate Internship in Kinesiology. 3 or 6 hours.
This course will provide students with a working experience at a professional job site where they can apply the knowledge, skills and abilities they have learned in the program. Course Information: Field work required. Students must provide their own transportation to and from internship sites. Prerequisite(s): Approval of the department and completion of all required courses for the chosen internship site.

KN 350. Cadaver Dissection I. 2 or 3 hours.
Cadaver dissection using the regional approach. Dissection of the musculo-skeletal system, spinal cord and peripheral nervous system. Course Information: Prerequisite(s): Grade of B or better in KN 251; or consent of the instructor.

KN 351. Cadaver Dissection II. 2 or 3 hours.
Cadaver dissection using the regional approach method. Dissection of the brain, cardiovascular, respiratory, digestive, urinary and reproductive systems. Course Information: Prerequisite(s): Grade of B or better in KN 252 or consent of instructor.

KN 352. Physiology of Exercise. 4 hours.
The physiological responses associated with acute and chronic physical exercise; muscular, circulatory, respiratory and nervous systems. Course Information: Prerequisite(s): KN 152; and KN 252 or KN 254. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture-Discussion.

KN 356. Movement Biomechanics. 3 hours.
Introduces students to the science of mechanics with a particular emphasis on the application of mechanics to the analysis of normal and pathological human and animal movement. Course Information: Previously listed as KN 260. Prerequisite(s): MATH 121 and KN 261 and PHYS 131 or higher.

KN 357. Tissue Biomechanics. 3 hours.
Introduces students to the biomechanics of the tissues of the body, emphasizing the musculoskeletal system. Students will study the structure-function relationship of tissues, and how this relationship is disrupted with disease or injury. Course Information: Credit is not given for KN 362 if the student has credit in KN 465. Prerequisite(s): MATH 121; and PHYS 131.

KN 360. Motor Control and Learning. 3 hours.
Introduction to basic principles regarding the acquisition and control of human movements. Course Information: Prerequisite(s): KN 252.

KN 361. Movement Biomechanics. 3 hours.
The physiological responses associated with acute and chronic physical exercise; muscular, circulatory, respiratory and nervous systems. Course Information: Prerequisite(s): KN 152; and KN 252 or KN 254. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture-Discussion.

KN 362. Tissue Biomechanics. 3 hours.
Introduces students to the biomechanics of the tissues of the body, emphasizing the musculoskeletal system. Students will study the structure-function relationship of tissues, and how this relationship is disrupted with disease or injury. Course Information: Credit is not given for KN 362 if the student has credit in KN 465. Prerequisite(s): MATH 121; and PHYS 131.

KN 363. Undergraduate Internship in Kinesiology. 3 or 6 hours.
This course will provide students with a working experience at a professional job site where they can apply the knowledge, skills and abilities they have learned in the program. Course Information: Field work required. Students must provide their own transportation to and from internship sites. Prerequisite(s): Approval of the department and completion of all required courses for the chosen internship site.

KN 364. Special Topics in Kinesiology. 1-3 hours.
An in-depth research analysis for the development of a research proposal in the student’s area of interest. Review current literature, investigate various research methodologies, review the relevant research policies, and develop a proposed project. Course Information: Prerequisite(s): Approval of the department.

KN 390. Undergraduate Research Presentation. 1 hour.
The implementation of the proposal developed in KN 390. Data collection, analysis and interpretation will provide the basis for the written project. The project will be presented in an open forum to faculty and other students. Course Information: Prerequisite(s): KN 398.

KN 400. Entrepreneurship for Applied Health Professionals. 3 hours.
Relates the theory, principles and practices applied in entrepreneurial start-up settings in healthcare and human performance professions. Course Information: Prerequisite(s): Junior standing or above.

KN 410. Aging and the Motor System. 3 hours.
Introduction to aging with a focus on its impact on the physical structure and function of the neural, muscular and skeletal systems; the mechanics through which the trajectory of aging can be potentially modified. Course Information: Prerequisite(s): KN 252.

KN 431. Lower Extremity Overuse Injury. 3 hours.
Critical review of the literature related to lower extremity overuse injury; current practices and research gaps in the prevention and treatment of these injuries; movement assessment and corrective exercise to prevent and care of these injuries. Course Information: Prerequisite(s): KN 261 and KN 331. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 432. Foundations of Positive Psychology. 3 hours.
Introduces students to positive psychology and the opportunities for human development channeling positive thoughts, emotions and behaviors to achieve life, relationships and legacy goals. Course Information: Prerequisite(s): Acceptance into the concentration in Performance, Sport and Exercise Psychology within the MS in Kinesiology or consent of the instructor.
KN 433. Sociocultural Perspectives in Performance, Sport and Exercise Psychology. 3 hours.
 Pertinent sociological issues and theories will be examined in the scholarly pursuit of knowledge and understanding of the sociological and cultural influences in the field of performance, sport and exercise psychology. Course Information: Prerequisite(s): Acceptance into the concentration in Performance, Sport and Exercise Psychology within the MS in Kinesiology or consent of the instructor.

KN 434. Business Branding in Performance, Sport and Exercise Psychology. 3 hours.
 Designed to help students build a coaching and/or consulting business for face-to-face and virtual clients. Course Information: Prerequisite(s): Acceptance into the concentration in Performance, Sport and Exercise Psychology within the MS in Kinesiology or consent of the instructor.

KN 435. Sport Psychology for Individual and Team Performance. 3 hours.
 Analysis and application of psychological concepts related to process and outcomes of sport and exercise programs. Course Information: Prerequisite(s): KN 237 or KN 335.

KN 438. Advanced Sport and Exercise Psychology. 3 hours.
 Explores research on the psychological effects of sport and exercise across the lifespan. Emphasis will be placed on understanding research methods and applying knowledge of consequences in practice. Course Information: Prerequisite(s): KN 237. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 441. Muscle Physiology. 3 hours.
 Examination of skeletal muscle function during physical activity and adaptations of skeletal muscle that occur with exercise training, inactivity and aging. Course Information: Prerequisite(s): KN 352.

KN 442. Principles of ECG Interpretation. 3 hours.
 Introduction to the basic principles and interpretation of the electrocardiogram (ECG) as it relates to fitness programs involving the apparently healthy as well as cardiac rehabilitation patients. Course Information: Prerequisite(s): Grade of C or better in KN 352; and junior standing or above; or consent of the instructor. Class Schedule Information: To be properly registered, students must enroll in one Lecture/Discussion and one Laboratory.

KN 445. Corrective Exercise for Postural and Movement Imbalances. 3 hours.
 Focuses on how to develop, integrate, and apply comprehensive strategies to identify, assess, and improve common postural and muscular imbalances which contributes to movement impairments. Course Information: Prerequisite(s): KN 243. Class Schedule Information: To be properly registered, students must enroll in one Laboratory and one Lecture-Discussion.

KN 447. Mental Health in Athletics. 3 hours.
 Designed to advance student understanding and response to current and emerging mental health issues in athletics. Course Information: Prerequisite(s): Junior standing or above.

KN 448. Adapted Exercise Programming. 3 hours.
 Examines the criteria for exercise and fitness participation for individuals with disabilities or chronic health conditions. Course Information: Previously listed as KN 348. Prerequisite(s): KN 345.

KN 450. Exercise Programming for Athletic Performance. 3 hours.
 Students develop the required knowledge and competencies to complete professional credential examinations with nationally and internationally recognized organizations such as the National Strength and Conditioning Association. Course Information: KN 345 or consent of instructor.

KN 452. Advanced Exercise Physiology. 3 hours.
 Builds on the science foundation provided by KN 352 to examine timely and emerging topics in exercise physiology. Students will develop skills for critical thinking, problem solving, and forming and defending a scientific opinion. Course Information: Prerequisite(s): KN 352. Class Schedule Information: To be properly registered, students must enroll in one Lecture-Discussion and one Laboratory.

KN 460. Neuromechanical Basis of Human Movement. 3 hours.
 Biomechanics of single and multi-joint systems, and its role in neural control of movement. Mechanisms of acute adaptations including warm-up, fatigue and potentiation, and chronic adaptations arising from reduced use or training. Course Information: Prerequisite(s): KN 361.

KN 465. Biomechanics of the Neuromusculoskeletal Systems. 3 hours.
 Introduces the non-engineering/physics student to the biomechanics of the neural, muscular and skeletal systems. The course focuses on normal structure-function of tissues and joints, injury and prevention. Course Information: Previously listed as KN 365. Prerequisite(s): KN 361 or one year of college physics; or consent of the instructor.

KN 472. Movement Neuroscience. 3 hours.
 Overview of the neurophysiology of human movement. This course will cover the mechanisms and neural circuitry of sensory and sensorimotor processes underlying the control of movement. Course Information: Prerequisite(s): KN 252. Recommended background: KN 352 and KN 372.

KN 475. Movement Disorders. 3 hours.
 Examines basic and applied understanding of the neural changes in motor function in disease and disorders of movement. This will include peripheral and central motor deficits. Prerequisite(s): KN 352 and KN 372.

KN 491. Professional Preparation. 3 hours.
 Advances student employability and graduate school success in five domains: problem solving, communication, team work, adaptability, and emotional intelligence; helps students develop five key skill competencies. Course Information: Prerequisite(s): Junior standing or above.

KN 493. Practicum in Undergraduate Teaching. 1-3 hours.
 Peer instruction experience for undergraduate students. Course Information: May be repeated to a maximum of 6 hours. Students may register for more than one section per term. Prerequisite(s): Students must have successfully completed the course in which they will be assisting (or an equivalent) and obtain consent of the instructor.

KN 494. Special Topics in Kinesiology. 1-3 hours.
 Flexible course structure designed to accommodate relevant topics beyond the scope of the current course offerings, with more in-depth analysis of primary literature. Course Information: May be repeated if topics vary. Students may register in more than one section per term. Prerequisite(s): Depending on topic, specific prerequisites may be required.
KN 495. Senior Seminar. 1 hour.
Challenges students to integrate concepts learned in previous courses to solve problems and come to conclusions on health-related topics. It also prepares students for their immediate post-baccalaureate professional steps. Course Information: Prerequisite(s): Senior standing or above.

KN 496. Special Projects in Kinesiology. 1-3 hours.
Independent research on special projects. Course Information: Prerequisite(s): Approval by graduate faculty member and graduate director.