

KINESIOLOGY

Department of Kinesiology

Website: <https://www.washburn.edu/academics/college-schools/arts-sciences/departments/kinesiology/>

Faculty

Professor Park Lockwood, PhD, Co-Chair
 Senior Lecturer John Burns, MS, Co-Chair
 Assistant Professor Eric Mosier, PhD
 Assistant Professor Yang Song, PhD
 Assistant Professor Clayton Whalen, PhD
 Senior Lecturer Karen Garrison, MA

Mission

The Mission of the Kinesiology Department is to engage students in an impassioned search for intellectual growth and personal fulfillment through study in one or more of the disciplines encompassed by the domains of health and human movement and prepare them for a career in Kinesiology or further study in related graduate and/or professional degree programs. The Department promotes the acquisition and application of knowledge and skills, fosters critical thinking, participates in research, and supports students and faculty in discipline-related service to the University, the profession, and the global community.

Vision

The Kinesiology Department, through continuing excellence in teaching, research, and service, will be recognized for producing quality graduates who possess the theoretical knowledge, applied skills and advanced competencies necessary to become leaders in the health and human movement related professions.

Graduates of Kinesiology Department degree programs are expected to have:

- Been involved in a comprehensive professional preparation program that meets or exceeds state and/or national standards.
- Participated in a wide variety of opportunities to gain experiences and knowledge through instruction in a variety of health and fitness activities and related topics.
- Been empowered to take charge of their learning through quality academic guidance in order to prepare for future career and/or professional goals.
- Developed an appreciation of leadership, research and/or educational service through participation and volunteerism.

Description of Discipline

Kinesiology is an academic discipline concerned with the study of physical activity and human movement and their impact on health, society and quality of life. It includes, but is not limited to, such area of study as health promotion, fitness, sport management, injury prevention and care, biomechanics, socio-cultural analyses of sports, physical education teacher education, exercise and sport psychology, and exercise science. In addition, Kinesiology provides an excellent academic foundation for the student wishing to pursue a graduate and/or professional degree in a wide range of allied health-related professions such as athletic training, clinical exercise physiology, physical therapy, occupational therapy, and cardiac rehabilitation.

Student Learning Outcomes

- Demonstrate an understanding of the fundamental knowledge (i.e., scientific, historical, philosophical) in the principal areas of study in Kinesiology.
- Summarize the relationship between physical activity participation and health, wellness, and quality of life.
- Determine an individual's health and fitness status through demonstrated proficiency in skills/competencies needed to successfully perform standard health and fitness assessments.
- Demonstrate proficiency in computer technology skills and use of applications that can be applied in exercise, fitness and sport settings.
- Critically evaluate research about physical activity and the movement-related professions.

Natural Science Concentration

All Bachelor of Science degrees include a required 30-hour natural science concentration, which includes courses chosen from departments in the Natural Sciences and Mathematics Division, other than the student's major department.

Natural Sciences Concentration courses for BS degrees offered by the Department of Kinesiology must be chosen from the disciplines of Biology, Chemistry, Math, and Physics, and 15 of these hours must be from Biology.

Degree Programs

- Exercise and Rehabilitation Science, BS (<https://catalog.washburn.edu/undergraduate/college-arts-sciences/kinesiology/kinesiology-exercise-rehabilitation-science-bs/>)
- Health and Fitness Promotion, BA (<https://catalog.washburn.edu/undergraduate/college-arts-sciences/kinesiology/kinesiology-health-fitness-promotion-ba/>)
- Sport Management, BA (<https://catalog.washburn.edu/undergraduate/college-arts-sciences/kinesiology/kinesiology-sport-management-ba/>)
- P-12 Physical Education Teaching, BEd (<https://catalog.washburn.edu/undergraduate/college-arts-sciences/kinesiology/p-12-physical-education-teaching-bed/>)
- Minor in Kinesiology (<https://catalog.washburn.edu/undergraduate/college-arts-sciences/kinesiology/minor-in-kinesiology/>)
- Minor in Coaching & Certificates (<https://catalog.washburn.edu/undergraduate/college-arts-sciences/kinesiology/kinesiology-coaching-minor/>)

Course Offerings

HL 277 Principles of Health Education and Promotion (3)

Designed to familiarize the student with the purpose, function, organization and administration of health education and promotion services. Some areas to be discussed are history and philosophy of health education, effective settings, behavior change theories, government initiatives, and ethics. Prerequisite: KN 248 or consent of instructor

HL 377 Critical Issues in Health (3)

This course will focus on controversies surrounding a wide range of current health science and personal health issues. When confronted by differing opinions and points of view, it is necessary to use critical thinking skills to comprehend, evaluate and make decisions in the face of uncertainty. Pros and cons of selected issues will be presented through readings, lectures, class discussions and both oral and written presentations. Prerequisite: KN 248 AND Junior standing OR consent of instructor.

HL 477 Health Program Planning and Evaluation (3)

This course is designed to study the fundamental concepts, models, theories and strategies pertaining to health education and promotion program planning and evaluation. Students will gain practical knowledge and will be expected to develop a comprehensive, theory-based strategy for delivery of a health promotion program, as well as provide for appropriate evaluation mechanisms throughout the program. Prerequisites: HL 277 and HL 377, or consent of instructor.

KN 100 Rhythmic Fitness (1)

Rhythmic Fitness

KN 101 Body Toning (1)

Body toning.

KN 102 Archery (1)

Archery

KN 103 Badminton (1)

Badminton

KN 104 Step Aerobics (1)

Step Aerobics

KN 107 Basketball (1)

Basketball

KN 109 Bowling (1)

Bowling

KN 111 Canoeing (1)

Canoeing

KN 112 Cycling (1)

Cycling

KN 113 Fencing (1)

Fencing

KN 117 Golf I (1)

Golf

KN 123 Judo (1)

Judo

KN 124 Karate (1)

Karate

KN 125 Lifeguard Training (1)

Lifeguard Training

KN 129 Racquetball (1)

Racquetball

KN 132 Softball (1)

Softball

KN 133 Swimming I (1)

Swimming I

KN 134 Swimming II (1)

Swimming II

KN 137 Tennis (1)

Tennis

KN 139 Tai Chi (1)

Tai Chi

KN 140 Pilates (1)

Pilates

KN 141 Yoga (1)

Yoga

KN 142 Zumba (1)

Zumba

KN 143 Soccer (1)

Soccer

KN 144 Volleyball (1)

Volleyball

KN 146 Weight Training (1)

Weight Training

KN 152 Kardio Kickbox (1)

Kardio Kickbox.

KN 157 Country & Western Dance (1)

Country and Western Dance

KN 162 Beginning Skin & Scuba Diving (1)

Beginning Skin and Scuba Diving

KN 165 Self-Defense (1)

Self-Defense

KN 169 Social Dance (1)

Social Dance

KN 170 Aqua Exercise (1)

Aqua Exercise

KN 171 Deep Water Walking (1)

Deep Water Walking

KN 173 Water Safety Instructor (1)

Water Safety Instructor

KN 176 Tae Kwon Do (1)

Tae Kwon Do

KN 190 Special Topics (1)

Special Topics

KN 192 Marathon Training I (1)

Marathon Training I

KN 193 Marathon Training II (1)

Marathon Training II

KN 240 Coaching Principles and Philosophy (2)

This course is required for the Minor in Coaching. It is designed to provide students with a basic understanding of coaching principles and help students develop a sound coaching philosophy. Students will examine their roles as coaches, improve communication and management skills, develop technical coaching skills, and learn proper team training and management strategies. This course will provide content necessary for students to complete the American Sport Education Program's (ASEP) certification exam. Prerequisite: Sophomore status.

KN 248 Wellness Concepts and Applications (3)

The purpose of this course is to introduce and explore the essential concepts of wellness and to gain an understanding of the processes that contribute to developing and maintaining a healthy lifestyle. The wellness approach will emphasize personal responsibility for one's health through critical examination and evaluation of the consequences of lifestyle choices, the selection and development of behavior change skills that promote optimal enhancement of all wellness dimensions, and the creation of a personal wellness plan for a productive and satisfying life.

Prerequisite: None.

Course Attributes:

- KBOR Gen Ed: Social and Behavioral Sciences
- Pre-AY 2024-2025 Gen Ed: Social Science
- USLO: Critical and Creative Thinking

KN 250 Introduction to Kinesiology (2)

This course examines the process of human movement as a unifying element in the study of the discipline of Kinesiology. Content areas include the scientific foundations of human movement, the history and philosophy of physical education, the role of physical education in the educational process, general purposes of Kinesiology programs, career orientation and the future of Kinesiology.

KN 257 Prevention and Care of Athletic Injuries (3)

This course will instruct and evaluate contemporary methods of conditioning, prevention, recognition and acute care of athletic injuries. This course will also focus on risk assessment and management relating to physical activity. The course is appropriate for Kinesiology majors, pre-healthcare majors, and students interested in coaching. An additional fee is associated with this course.

KN 266 Microcomputer Applications to Kinesiology (2)

This course examines computer technology applications and software related to Kinesiology and Physical Education. Prerequisite: None.

KN 271 First Aid and CPR (2)

General emergency first aid including sudden illness, musculoskeletal injuries, heat/cold emergencies, splinting, bandaging and CPR. Opportunity is provided to earn both American Red Cross Responding to Emergencies First Aid and CPR certifications. An additional fee is associated with this course.

KN 280 Sports Officiating I (2)

Study and interpretation of current rules; field work for practicing officiating techniques. Prerequisite: Consent of instructor.

KN 281 Coaching Football (2)

Fundamentals and coaching techniques in coaching football. Rules, planning and implementing practice sessions, offensive and defensive techniques and strategies, game day organization, and administrative responsibilities will be covered. implementing practice sessions, offensive and defensive techniques and strategies, game day organization, and administrative responsibilities will be covered.

KN 282 Coaching Basketball (2)

Fundamentals and coaching techniques in basketball. Rules, offensive and defensive strategies, planning and implementing practice sessions and administrative requirements will be covered. strategies, planning and implementing practice sessions and administrative requirements will be covered.

KN 283 Coaching Track and Field (2)

Fundamentals and coaching techniques and methods in all events within a track and field program. Rules and regulations, meet strategies, planning and implementing practice sessions and administrative requirements will be covered.

KN 284 Coaching Baseball and Softball (2)

Fundamentals and coaching techniques in baseball and softball. Rules, offensive and defensive strategies, planning and implementing practice sessions and administrative requirements will be covered.

KN 285 Coaching Volleyball (2)

Fundamentals and coaching techniques involved in coaching volleyball. Rules, practice and game day organization, offensive and defensive strategies, and administrative responsibilities will be covered.

KN 286 Coaching Soccer (2)

Fundamentals and coaching techniques in soccer. Rules, offensive and defensive strategies, planning and implementing practice sessions administrative requirements will be covered.

KN 291 Professional Experience and Development in Exercise and Rehab Science (1)

This course is designed to help students explore exercise and rehabilitation professions, providing them a framework for the foundational knowledge and skills gained as an exercise and rehabilitation science major. Classroom discussions, professional presentation and clinical observations exposing majors to potential careers and professional settings are included. Prerequisites: AL 101 or KN 250, OR consent of instructor.

KN 299 Assessment & Procedures in Health & Physical Activity (3)

This class develops competency in assessments and procedures common in a variety of physical activity settings. The class emphasizes the administration and basic interpretation of appropriate assessments for skill performance and fitness assessments with computer applications and presentation methods included. Prerequisites: None.

KN 300 Psychology of Sport and Physical Activity (3)

The study of psychological processes related to sport and exercise behavior. The course will provide a broad overview of the major topics, including: motivation, arousal, goal-setting, self-confidence, and imagery. Prerequisites: Junior standing or consent of instructor.

KN 306 Organization and Administration in Kinesiology (3)

This course is designed to provide a theoretical and practical approach to the organization and administration of Kinesiology programs. Students will be assigned administrative projects to enhance learning. Prerequisite: Junior standing or consent of instructor.

KN 308 Nutrition for Sports & Fitness (3)

This course will provide an understanding of nutrition and its relationship to physical fitness and sports performance. Students will learn about nutrition guidelines and the effects of nutrition on topics such as metabolism, hydration, body composition, supplements, ergogenic aids, and sports specific training. In addition, students will perform and analyze nutrition and energy assessments and make recommendations to improve performance. Prerequisite: Junior standing or consent of instructor.

KN 311 Motor Learning & Development (3)

This course is designed to provide students with an examination of current theories of motor development throughout the life cycle. Emphasis is placed on development of fundamental motor skills, physical growth and development, and assessment. Students will be required to conduct a variety of assessments on diverse individuals. Prerequisites: Junior standing or consent of instructor.

KN 315 Special Topics in Kinesiology (1-3)

May vary from semester to semester. May be taken more than one semester depending upon topic.

KN 318 Exercise Psychology (3)

This course will introduce students to the basics and provide a solid foundation of psychological consequences and adherence aspects associated with the psychology of exercise. The interconnection among theory, research, application, and intervention will be utilized in order to apply the knowledge learned in this course to actual situations. Prerequisites: Junior standing or consent of instructor.

KN 321 Anatomical Kinesiology (3)

The study of anatomical and mechanical principles in relation to human motion. Prerequisite: BI 250 or BI 275.

KN 326 Physiology of Exercise (3)

Process of scientific inquiry applied to physiological systems engaged in exercise. Examination of the acute and chronic effects of exercise on structure, function, and performance. Prerequisite: BI 230 or BI 255

KN 327 Physiology of Exercise Lab (1)

The purpose of this course is to gain an understanding of the physiology (neuromuscular, metabolic, and cardiopulmonary) of exercise, including the physiology of training (i.e., the acute responses and chronic adaptations that occur due to exercise). This course will reinforce the basic exercise physiology concepts via application, increase awareness of and proficiency in performing selected laboratory tests and measurements commonly used in exercise physiology studies of humans, and provide practice in the process of data collection, evaluation and reporting. Prerequisites: BI 255; must be taken concurrently with KN 326.

KN 330 Administration of Exercise and Rehabilitation Science (3)

This class is designed to provide foundational information relating to the Administration of Exercise and Rehabilitation Science professions for Kinesiology majors who intend on pursuing Exercise or Rehabilitation Science professions. Students will learn the importance of quality management of financial, human, and facility resources. Prerequisites: KN 291 and junior standing.

KN 335 Human Factors and Ergonomics (3)

This course examines human factors and ergonomics as the interdisciplinary study of humans interacting with elements of systems in the workplace and other environments. Thorough analysis, evaluation, and synthesis are employed in the application of design to optimize well-being and performance. Prerequisite: Sophomore standing or consent of instructor.

KN 340 Adapted Physical Education (3)

This course will provide students with the knowledge, skills and instructional techniques necessary to adapt and modify physical activities for students with developmental delays and/or mental and physical disabilities. Legal issues associated with educating individuals with disabilities in the physical education setting will be examined. A practicum experience in the public school setting and/or community setting is required. Prerequisite: Junior standing or consent of instructor.

KN 341 Teaching & Coaching Team Activities (3)

This course emphasizes teaching and coaching common sports and other team-based activities. Students coach and instruct classmates in skills, strategies, and progressions of team activities such as soccer, basketball, flag football, etc. They are assessed on their ability to apply appropriate instructional strategies and teaching methods for assigned activities. Prerequisites: Sophomore standing or consent of instructor.

KN 342 Teaching & Coaching Exercise & Fitness Activities (3)

This course emphasizes teaching and coaching traditional resistance, fitness, and functional exercise activities. Students coach and instruct classmates in skills and progressions related to body weight movements, resistance exercise, and group fitness techniques. They are assessed on their ability to apply appropriate instructional strategies and teaching methods for assigned activities. Prerequisites: Sophomore standing or consent of instructor.

KN 343 Teaching & Coaching Lifetime Activities (3)

This course emphasizes teaching and coaching lifetime activities. Students coach and instruct classmates in skills, strategies, and progressions related to lifelong activities such as golf, tennis, pickleball, disc golf, etc. They are assessed on their ability to apply appropriate instructional strategies and teaching methods for assigned activities. Prerequisites: Sophomore standing or consent of instructor.

KN 344 Teaching & Coaching Rhythms, Tumbling & Fundamental Activities (3)

This course emphasizes teaching and coaching rhythms, tumbling techniques, and other foundational locomotor skills. Students coach and instruct classmates in skills, strategies, and progressions for developmental activities such as running, jumping, throwing, catching, rhythmic movement, and gymnastics. They are assessed on their ability to apply appropriate instructional strategies and teaching methods for assigned activities. Prerequisites: Sophomore standing or consent of instructor.

KN 345 Physical Education Activity Techniques V (2)

This course will provide Physical Education and Kinesiology majors with an introduction to a variety of outdoor activities and related teaching experiences. The overall purpose is to provide potential teachers and recreational leaders with the foundational knowledge and skills necessary to teach and participate in a variety of outdoor leisure activities. An additional fee is associated with this course. Prerequisites: Sophomore standing or consent of instructor.

KN 350 Orthopedic Evaluation (3)

This course is designed to instruct students on the techniques involved evaluating orthopedic injuries. This course will cover the sequence of a formal evaluation, documentation, the signs & symptoms of common injuries, & differential diagnosis. Prerequisite: KN 321.

KN 357 Sports Performance Training and Conditioning (3)

This course provides students with the knowledge and skills to design, measure, and instruct contemporary activity-specific functional training programs. The course will emphasize methods and progression of strength, flexibility, speed, power including Olympic lifts and plyometrics, agility, balance, core and endurance training techniques with modern tools and exercise equipment. Peer teaching and testing and opportunity to participate in practical application of skills is included. Prerequisite: Junior standing or consent of instructor.

KN 366 Functional Movement Screening Certification (FMS Certification) (1)

This course provides comprehensive knowledge and application of the Functional Movement Screening process, leading to Functional Movement Screening Level 1 certification. Washburn University is a higher education partner with FMS, Inc. The FMS is recognized worldwide as a valid and reliable screening tool to identify limitations or asymmetries in movement in individuals with no current pain or known musculoskeletal injury. Certification does not expire, and successful students may identify themselves as Level 1 FMS-certified screeners upon class completion. Prerequisites: None.

KN 367 Therapeutic Exercise (3)

This course is designed to provide Kinesiology majors with theoretical basis, comprehension and synthesis in the application of therapeutic exercise to address metabolic disease and musculoskeletal disorders. Students will develop specific exercise approaches for a varied population of people with a variety of special conditions to improve movement, function and quality of life. Prerequisite: KN 321.

KN 370 Facility & Event Management (3)

This course addresses the principles and procedures involved in sports facility and event management. Special emphasis will be given to sports event planning, production, and evaluation. Prerequisite: Junior standing or consent of instructor.

KN 399 Personal Training Certification (CPT Certification) (2)

Students learn the essentials of personal fitness training utilizing the National Academy of Sports Medicine's (NASM) Optimum Performance Training (OPT) model, which leads to eligibility to sit for the NASM's Personal Training Exam. Students will be guided through class and self-study activities and, upon completing the course, will be eligible to sit for the NASM Personal Training Certification exam. Prerequisites: None.

KN 403 Biomechanics (3)

This course provides an overview of biomechanics related to sport and exercise. Specific topics include: external forces and their effect on the body and its movement, including linear and angular kinetics; work, power, and energy in human activity; and the internal mechanics of human tissues, specifically the bones, skeletal muscle, ligaments, and tendons that make movement possible. This course will consist of lecture, discussion, and laboratory sessions to communicate the background of biomechanical principles, as well as their application. Prerequisites: KN 321 and PS 131/PS 132 or PS 261

KN 410 Fitness Testing and Exercise Prescription (3)

Students will become familiar with current fitness testing procedures and exercise prescription methods. Prerequisites: KN 326 and KN 342.

KN 411 Current Literature in Kinesiology (3)

This course acquaints students with the processes by which research generates information and theoretical advances in Kinesiology and also explores specific recent developments in the field. Prerequisite: KN 326, MA 140 or PY 151.

KN 420 Methods and Professional Preparation in Health and Physical Education (3)

Instructional methods and professional experience providing those going into teaching-related professions with the knowledge to create developmentally appropriate health and physical activities for preschool through high school age students. This class includes practical site-based experiences in planning, teaching, and evaluating lessons in health and physical education. Prerequisites: Junior standing or consent of instructor.

KN 430 Senior Seminar Physical Education (1)

This is a capstone course in which teacher candidates will review and update their Physical Education philosophy, complete their Physical Education portfolio, further develop their professional goals and plan for professional development; create their advocacy plan, and complete a practical experience related to the major. Prerequisites: Senior standing and formal acceptance into the Professional Teacher Education Program; or consent of instructor.

KN 491 Independent Study in Kinesiology (1-3)

This course is designed for students interested in gaining practical experience in settings related to exercise and rehabilitation science, such as athletic training, physical therapy, clinical exercise physiology, fitness/wellness, sports and conditioning or research settings.

KN 497 Internship: Sport Management (6)

This course provides an off-campus experience in the field of sport management, in areas such as facility operations, game day promotions and advertising, ticket sales, and/or front-office administration. Each credit hour of internship equates to 50 contact hours at the internship site. This internship is for a minimum of 300 hours and a maximum of 600 hours. Prerequisite: All Major and Activity Requirements completed AND Adult, Child & Infant CPR & AED certification.

KN 498 Internship: Health and Fitness Promotion (3)

This course provides an off-campus experience in health promotion and/or fitness settings such as public health, corporate wellness, personal training, strength and conditioning, and recreation administration. Each credit hour of internship equates to 50 contact hours at the internship site. This internship is for a minimum of 150 hours and a maximum of 300 hours. Prerequisite: All Major and Activity Requirements completed AND Adult, Child & Infant CPR & AED certification.