

KINESIOLOGY AND SPORT STUDIES (KINE)

KINE 1005 Resistance Training and Strength and Conditioning Methods (4 Credits)

Resistance training is an overarching term for human physical activities performed against a force at a given velocity. Examples of resistance training include the use of free weights, dumbbells, flywheel and pneumatic machines, bodyweight, bands, chains, and more. Strength and conditioning methods is an overarching term for modes of physical activity commonly used in sport and fitness settings. In this foundational course, students will develop an introductory-to-intermediate scientific and practical understanding of resistance training and strength and conditioning methods.

KINE 1015 Foundations of Olympic Weightlifting and Powerlifting (4 Credits)

Powerlifting and weightlifting (Olympic lifts and their derivations) are two widely popular strength- and power-based sports and these movements offer numerous physiological, psychological, and social benefits. The primary movements, including the deadlift, bench press, squat, clean and jerk, and snatch are also nearly universally applied to sports performance training. From recreational to world champion athletes, understanding the rules, equipment, and training practices of powerlifting and weightlifting is essential to developing mastery as a lifter and instructor. Students in this course will learn by doing and acquiring foundational content knowledge in these lifts and the organization of the sports. Students will also learn about powerlifting and weightlifting national governing bodies and how the sport is administered.

KINE 2000 Foundations of Kinesiology and Sport Studies (4 Credits)

People often ask, "What is kinesiology?" This course prepares students to answer that very question. Students will explore the various subdisciplines that inform the field of kinesiology and sport studies such as sport history, sport sociology, exercise physiology, anatomy, biomechanics, motor behavior, and sport psychology. This course will also examine career opportunities and graduate school options in the field, and prepare students to navigate advanced courses and topics. At the end of this course, students will be able to: Articulate how historical moments have influenced the field of kinesiology and sport. Identify and prepare for a career path in kinesiology or sport studies. Describe and differentiate the subdisciplines of kinesiology. Apply concepts and theories from kinesiology to self, others, and society.

KINE 2010 Motor Learning for Skill Acquisition (4 Credits)

This course will provide students with an understanding of how individuals (e.g., athletes, performers, recreationists) learn, perform, and retain motor skills. The course will explore how individual psychology, dynamic environments, and varying group and cultural practices affect skill acquisition. Students will develop foundational skills to develop and implement instructional strategies (e.g., practice plans, activities, feedback, affordances) to facilitate skill learning and performance enhancement, skill modifications for injury prevention, and rehabilitation of injury. This course will cover a variety of theoretical and scientific concepts pertaining to skill acquisition and learning across a variety of settings. Prerequisite: KINE 2000.

KINE 2020 Sociology of Kinesiology and Sport Performance (4 Credits)

An applied approach to the sociology of kinesiology and sport performance integrates theory and practice, also called praxis, to help students become critical thinkers and problem solvers. Students will be exposed to traditional sociological frameworks such as functionalism, interpretivism, and critical theory; themes such as gender, race, class, and ableism; and topics such as identity, deviance, coaching, performance, health, exercise, and sport. The applied focus will prepare students to see sociologically in everyday kinesiology and sport contexts in order to enhance performance and other outcomes, inclusive of ethical considerations. Prerequisite: KINE 2000.

KINE 2030 Administration of Sport, Fitness, and Wellness (4 Credits)

Organization and administration of sport, fitness, and wellness prepares students to manage and lead in diverse contexts. Course topics introduce students to relevant theoretical and practical aspects of administration, such as managerial functions, human resource management, marketing, budgeting, risk management, and finance. The breadth of the course will set a foundation for students to expand and specialize their skills while pursuing specific career opportunities. Prerequisite: KINE 2000.

KINE 2035 Anatomical Kinesiology (4 Credits)

Anatomical kinesiology is the study of muscles, bones, and joints and how they function to produce human movement. This course covers major bodily structures of the human body, from head to toe. A foundational understanding of human anatomy is beneficial or needed for advanced study of many kinesiology topics and careers, such as biomechanics, strength and conditioning, sport science, athletic training, sport psychology, and allied health. By design, this course focuses on anatomical kinesiology to prepare students for application in a variety of kinesiology and sport contexts.

KINE 2040 Athletic Nutrition (4 Credits)

From the youth to high-performing athletes on to master's athletes and weekend warriors, nutrition effects recovery, performance, and a host of other processes. This course provides students with an understanding of the physiological, psychological, and cultural aspects of athletic and fitness nutrition. Students will learn how to prepare athletes and clients for practice, competition, transitions, and everyday life. Additional course topics include disordered eating, ergogenic aids and supplements, professional nutrition organizations and career development, and sport-specific nutrition strategies.

KINE 2050 Sport Psychology (4 Credits)

Sports psychology aims to improve athlete well-being and performance. In this class, students learn about the key concepts and theories from sport psychology such as motivation, anxiety, goal setting, imagery, and team cohesion. A key component of the course requires students to not only apply these concepts through cornhole tournaments throughout the semester, but to also interrogate taken-for-granted assumptions embedded in the field of sport psychology.

KINE 2701 Special Topics in Kinesiology and Sport Studies (4 Credits)

Kinesiology and sport studies topics of special interest to faculty and students as needed to complement and expand existing curriculum and test innovative subject matter or teaching and learning practices. May be taken more than once. Prerequisite may vary based on specific special topic.

KINE 3000 Diversity, Equity, and Inclusion in Kinesiology & Sport (4 Credits)

This course exposes students to diversity, equity, and inclusion in kinesiology and sport. Related terminologies and frameworks such as social justice, critical studies, and power, privilege, and oppression will also be explored and in relation to the often more palpable term DEI. Students will develop a shrewd understanding of how inequalities, identities, and forms of hate and discrimination were created and how they manifest in sport contexts (e.g., ownership, labor, leadership, science). Students will also develop practical skills to advance a praxis (theory and practice) of DEI that embraces continuous development and inclusive excellence.

KINE 3005 Research in Kinesiology and Sport (4 Credits)

This course focuses on the wide variety of research in kinesiology and sport to prepare students to become critical consumers of scholarship. Students will understand the ethics, values, and other assumptions underpinning kinesiology research. Issues to be explored in relation to research include diversity, equity, and inclusion, marginalized ways of knowing, and how in the name of science people have been harmed. Course topics will include framing a research problem, designing a research study, and doing research, including writing and dissemination. Students will appreciate a wide understanding of qualitative and quantitative, descriptive and explanatory, laboratory and naturalistic approaches to scholarship. Prerequisites: KINE 2000.

KINE 3010 Ethics and Leadership in Kinesiology and Sport (4 Credits)

This course examines moral issues, reasoning, and theories in kinesiology and sport. Students will develop a deep understanding of sport ethics and embody a profound sense of integrity as a leader and citizen. The course will approach ethics from the leader's role on topics such as equality, diversity, equity, and inclusion, science and research, violence, capitalism, government regulation. Kinesiology and sport-specific ethical issues will be covered, such as drugs and performance enhancing substances, technology and genetic testing, deviance, violence, and fair play.

KINE 3015 Sport Science (4 Credits)

Sport science is often defined as the scientific study and application of science for sport and performance enhancement. Sport scientists often possess a range of industry titles and roles, but share commonalities in engaging in scientific research, using scientific thinking to enhance outcomes and dispel myths, and instill best practices in the use of performance technology and evidence-informed training practices. Foundational areas of sport science tend to include: physiology, biochemistry, biomechanics, nutrition, skill acquisition, psychology, statistics, analytics, and technology management. Prominent course topics include theoretical and conceptual knowledge of sport training theory, athlete monitoring and assessment, managing data and analytics, and educating and disseminating information. Students will also consider ethical and interdisciplinary aspects of sport science, including psychology of optimal performance, surveillance technology, and informed consent. Prerequisites: KINE 1005 or KINE 1015 and KINE 2035 or BIOL 3241.

KINE 3020 Biomechanics of Kinesiology and Sport (4 Credits)

Biomechanics of kinesiology and sport entails the study of mechanics applied to the biological systems of the body, with a focus on athletic and human movement performance. Students learn foundational knowledge of biomechanical principles and laws to explain how the body functions to produce movement, which can be used to analyze and enhance movement and quality of life in a variety of settings (e.g., athletics, wellness, sports science, coaching). Prerequisite: KINE 2035 or BIOL 3241.

KINE 3021 Biomechanics of Kinesiology and Sport Lab (1 Credit)

Biomechanics of kinesiology and sport lab facilitates students applied skills in the kinematics and kinetics of human movement, with a focus on sport, wellness, and clinical settings. Students collect and analyze data generated from movement analysis technology and make recommendations for how to improve function and reduce dysfunction. A variety of human and athletic movements are explored, and students learn to improve movement performance and reduce injury. Prerequisite: KINE 2023 or BIOL 3241.

KINE 3025 Prevention and Care of Athletic Injuries I (4 Credits)

This course introduces students to the principles and practices of sports medicine, athletic training, and the sports performance team. In this first course in a two-course series, students learn about the professional development and responsibilities of healthcare providers and juxtapose this to sport, fitness, and wellness providers who often have different goals and environmental pressures. Course topics also include risk management, pathology of sports and movement injury, management skills, musculoskeletal conditions, and general medical conditions. Prerequisite: KINE 2035 or BIO 3241.

KINE 3026 Prevention and Care of Athletic Injuries II (4 Credits)

In this second course, in a two-course series, students learn about the professional development and responsibilities of healthcare providers and juxtapose this to sport, fitness, and wellness providers who often have different goals and environmental pressures. This course introduces students to the principles and practices of sports medicine, athletic training, and the sports performance team. Course topics also include risk management, pathology of sports and movement injury, management skills, musculoskeletal conditions, and general medical conditions. Prerequisite: KINE 2035 or BIOL 3241.

KINE 3030 Strength and Conditioning Coaching (4 Credits)

This course focuses on developing students' applied leadership, management, and instruction skills, and professional judgment in kinesiology and sport fields, with an emphasis on strength and conditioning and fitness contexts. Students learn to instruct a variety of strength and conditioning methods, such as speed, plyometrics, agility, resistance training, and strength athletics (e.g., Atlas Stones, Highland Games). Students also learn about the associated ethical, psychological, sociocultural, pedagogical, andragogical, and political aspects and issues with the practice of being a strength and conditioning and health and wellness practitioner. The course will also help students seeking certification with the National Strength and Conditioning Association and related organizations. Prerequisite: KINE 1005 or KINE 1015 and KINE 2035 or BIOL 3241.

KINE 3031 Scientific Aspects of Strength and Conditioning (4 Credits)

Scientific Aspects of S&C prepares students to understand the scientific research areas informing strength and conditioning practices. Students will learn about foundational scientific ways of understanding the human and athletic body, particularly the varying systems of the human body, endocrine responses, and anaerobic and aerobic adaptations to training. Additional, rudimentary consideration will be given to psychological, nutritional, and organizational aspects of strength and conditioning. The course will also help students seeking certification with the National Strength and Conditioning Association and related organizations. Prerequisite: KINE 1005 or KINE 1015 and KINE 2035 or BIOL 3241.

KINE 3035 Physiology of Sport Performance (4 Credits)

Sport physiology is the study of how sport participation, physical activity, training, and/or exercise alters the structure and function of systems of the body. This course examines the acute physiological responses and chronic adaptations of the muscular, endocrine, cardiovascular, metabolic, respiratory, and immunological systems of the body as they apply to sport performance. Environmental influences (e.g., altitude and heat), performance choices (e.g., nutrition), and selected developmental considerations (e.g., as related to identity and aging differences) are discussed as they intersect with physiological performance for sport participation and performance. A foundational understanding of sport physiology is needed for the advanced study of many kinesiology topics and careers, such as strength and conditioning, sport science, athletic training, sport psychology, and allied health fields. By design, this course focuses on sport physiology topics to prepare students for applying training principles, methods, programs, and practices to a variety of kinesiology and sport contexts and sport participants.

KINE 3980 Internship in Kinesiology and Sport (0-8 Credits)

The purpose of this course is to provide students in the kinesiology and sport studies major an experience for gaining knowledge, skills, and attitudes in related career fields through experiential learning and reflective practice. Through real-world experience, students will develop a more accurate and nuanced understanding of the realities of everyday practice in kinesiology and sport. These experiences are essential for students in the major to test out, integrate, negotiate, and transform their newly acquired theoretical and evidence-based academic subject knowledge within the realities of everyday practice. During internship, students will complete additional course assignments via distance technologies.

KINE 3991 Independent Study (0-10 Credits)

Independent research/study.