

# KINE - KINESIOLOGY (KINE)

## KINE 120 The Science of Basic Health and Fitness

**Credit 1. 1 Lecture Hour. 1 Lab Hour.** Overview of the human body; scientific fundamentals of stress, fitness, nutrition, disease and drug use; interdisciplinary focus on wellness and longevity; integrated physical activity experiences centering on principles and applications of the scientific basis of conditioning; not open to students who have taken KINE 223; also taught at Galveston campus.

## KINE 121 Physical and Motor Fitness Assessment

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Assessment of individual physical fitness and motor ability profiles for students majoring in kinesiology. **Prerequisite:** Kinesiology major.

## KINE 175 Gender Neutral Partnering

**Credit 1. 2 Lab Hours.** Explores the fundamental principles of partnering; explores the properties of momentum, weight sharing, contact improvisation, breath, timing and trust; develops movement phrases on the principles of impromptu and partnering.

## KINE 198 Health and Fitness Activity

**Credit 1. 2 Lab Hours.** Half lecture; half activity; student choice of designated fitness or strength related activities; lecture portion covers current health topics.

## KINE 199 Required Physical Activity

**Credit 1. 2 Lab Hours.** (Any 1-hour PHED activity course) Required Physical Activity. Selection from a wide variety of activities designed to increase fitness and/or encourage the pursuit of lifetime activity; also taught at Galveston campus.

## KINE 210 The Art of Movement

**Credits 3. 3 Lecture Hours.** Introductory course that examines and appreciates movement as expressed by every culture; movement is a function driven by context, whether practical or artistic; this course examines how dance is used to advance personal, social expression via design, patterning, connoted meaning, and inter-connectivity of form; in-class discussions, applications, and presentations, students attend and critique off-campus dance productions to enhance perspective, experience and appreciation of dance movement; Galveston campus; also taught at College Station campus.

## KINE 213 Foundations of Kinesiology

**Credits 3. 3 Lecture Hours.** (PHED 1301) Foundations of Kinesiology. History, principles, objectives, current concepts of kinesiology.

## KINE 214/HLTH 214 Health and Physical Activity for Children

**Credits 3. 3 Lecture Hours.** (PHED 1331) Health and Physical Activity for Children. Coordinated school health and physical activity programs appropriate for elementary aged children; focus on the content of the curriculum and the philosophical underpinnings of programming related to health and physical activity. **Cross Listing:** HLTH 214/KINE 214.

## KINE 215 Fundamentals of Coaching

**Credits 3. 3 Lecture Hours.** (PHED 1321) Fundamentals of Coaching. Preparation of prospective coaches by gaining competence in coaching in today's environment; emphasis on developing the athlete, creating an effective practice environment, utilizing game management strategies, and skill analysis; research of successful coaches to develop coaching philosophy. **Prerequisite:** Kinesiology majors and coaching minors only.

## KINE 216/HLTH 216 First Aid

**Credits 2. 2 Lecture Hours.** (PHED 1306) First Aid. Basic first aid instruction leading to University Level, first aid course completion recognition. **Cross Listing:** HLTH 216/KINE 216.

## KINE 223 Introduction to the Science of Health and Fitness

**Credits 3. 2 Lecture Hours. 2 Lab Hours.** Overview of the human body systems; interdisciplinary focus on wellness, fitness, nutrition, disease, drug use; integrated physical activity centering on principles and applications of conditioning; collect data, evaluate information, formulate plans based on findings; experience with pedometers, heart rate monitors, bioelectrical impedance devices, software and other technology; also taught at Galveston campus.

## KINE 282 Culture of Wellness

**Credits 3. 2 Lecture Hours. 2 Lab Hours.** Explore the dimensions of wellness across worldwide cultures; analyze, compare and contrast wellness choices and their impact on the individual and society; investigate a global region and its wellness practices; integrate physical activity experiences that are centered on the history and culture of a focus activity that originated outside the United States; also taught at Galveston campus.

## KINE 285 Directed Studies

**Credits 0 to 4. 0 to 4 Other Hours.** Work on a specified topic with the intent of promoting independent reading, research and study; supplement existing course offerings or subjects not presently covered. **Prerequisites:** Freshman or sophomore classification; approval of instructor.

## KINE 289 Special Topics in...

**Credits 0 to 4. 0 to 4 Lecture Hours.** Selected topics in an identified area of kinesiology. May be repeated for credit.

## KINE 291 Research

**Credits 0 to 4. 0 to 4 Other Hours.** Research conducted under the direction of faculty member in kinesiology. May be repeated 4 times for credit. **Prerequisites:** Freshman or sophomore classification and approval of instructor.

## KINE 302 Applied Exercise Physiology for Coaches

**Credit 1. 1 Lecture Hour.** Survey of the physiology of exercise with an emphasis on topics in applied physiology that coaches should understand in working with student athletes of both genders and different ages. **Prerequisites:** Grade of C or better in KINE 306 or concurrent enrollment; junior or senior classification or approval of instructor.

## KINE 305 Sport Nutrition

**Credits 3. 3 Lecture Hours. 0 Lab Hours.** Optimal nutritional intake in support of peak performance in sport and dance; food as fuel and which fuels are most important to specific sport/dance activities; the role nutritional supplements can play; fluid balance; weight management for athletes and dancers. **Prerequisites:** NUTR 202 or equivalent or approval of instructor; junior or senior classification.

## KINE 306 Functional Anatomy for Coaches

**Credit 1. 2 Lab Hours.** Introduction to musculoskeletal anatomy and movement analysis and the applications of these topics to basic sport skills. **Prerequisite:** Junior or senior classification or approval of instructor.

## KINE 307 Lifespan Motor Development

**Credits 3. 3 Lecture Hours.** Developmental characteristics and contemporary issues associated with motor behavior across the lifespan. **Prerequisite:** Junior or senior classification or approval of instructor.

## KINE 308 Integrated Adventure Education

**Credits 3. 2 Lecture Hours. 3 Lab Hours.** Philosophy of outdoor education in a physical education program; designing and implementing outdoor adventure activities in an experiential and interdisciplinary manner for reinforcing the Texas Essential Knowledge and Skills. **Prerequisites:** Junior or senior classification or instructor approval.

## KINE 311 Fundamental Rhythms and Dance

**Credits 3. 2 Lecture Hours. 3 Lab Hours.** Appreciation of rhythms and dance movements in a cultural context; analysis of dance performance; basic understanding of the various dance components. **Prerequisite:** Approval of instructor.

## KINE 312 Coaching of Baseball

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Theory and practice of coaching fundamentals in baseball. **Prerequisite:** Grade of C or better in KINE 215.

## KINE 314 Coaching of Soccer

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Study of modern theories and applications related to coaching soccer. **Prerequisites:** Grade of C or better in KINE 215.

## KINE 317 Coaching of Football

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Theory and practice of coaching fundamentals in football. **Prerequisite:** Grade of C or better in KINE 215.

## KINE 318 Care of the Athlete

**Credits 3. 3 Lecture Hours.** Overview of the profession of athletic training; comprehensive analysis of the theories and practices in preventing, recognizing and treating common athletic injuries. **Prerequisite:** Junior or senior classification.

## KINE 320 Advanced Athletic Injuries

**Credits 3. 3 Lecture Hours.** Principles and procedures of therapeutic modalities, therapeutic exercise and rehabilitation as they relate to physical education, athletic training and physical therapy. **Prerequisites:** KINE 318 and approval of instructor.

## KINE 321 Coaching of Volleyball

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Coaching fundamentals in volleyball. **Prerequisites:** Grade of C or better in KINE 215.

## KINE 324 Career Development in Coaching and Youth Development

**Credits 3. 3 Lecture Hours.** Topic relevant to and career options in the coaching profession; preparation of future coaches and youth development professionals for successful careers; exploration and development of skills and knowledge to lead and manage individuals and teams. **Prerequisites:** Junior or senior classification; approval of instructor.

## KINE 325 Administrative and Athletic Operations for Coaches

**Credits 3. 3 Lecture Hours.** Development of knowledge and skills related to event and tournament organization, sport governing bodies, school officials; comprehension of risk management, financial management; includes classroom experiences, observations and field-based experiences to link theory into practice. **Prerequisites:** Junior or senior classification.

## KINE 334 Coaching in Personal Training

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** An overview of the knowledge, skills, and expectations associated with being a competent personal trainer or fitness professional; fundamentals in addressing an individual's health, medical and fitness status, along with comprehending fitness concepts including nutrition, bioenergetics, biomechanics and applied anatomy. **Prerequisite:** Grade of C or better in KINE 215.

## KINE 335 Coaching in Group Fitness

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** An overview of the knowledge, skills and expectations associated with being a competent group fitness instructor; creation, application and adaptation of a variety of group fitness classes based on population size, skill level, equipment available and facility space; basic business practices and professional certification procedures that are required of a fitness professional. **Prerequisite:** Grade of C or better in KINE 215.

## KINE 340 Essentials of Strength and Conditioning

**Credits 3. 3 Lecture Hours.** Current principles and procedures essential to strength training and conditioning practices; emphasis on development and practical applications of scientific based anaerobic conditioning, flexibility, mobility, muscular strength, power and aerobic endurance program designs. **Prerequisites:** Junior or senior classification; grade of C or better in KINE 318 or KINE 320; recommend KINE 199 Majors Aerobic Movement, KINE 199 Majors Resist Flex prior to registering.

## KINE 345 Coaching of Weight Training

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Overview of the knowledge, skills, and expectations associated with being a competent resistance training coach; fundamentals in addressing training facility etiquette and safety, along with gaining proper knowledge for exercise technique and improvement of athletic performance; specific, real-world information about the knowledge, skills, and expectations associated with a competent coach and specific skills gained during weight training sessions. **Prerequisites:** Grade of C or better in KINE 215.

## KINE 351 Coaching of Basketball

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Theory of fundamental skills needed to coach basketball with emphasis on knowledge of rules, strategies and skill analysis. **Prerequisites:** Grade of C or better in KINE 215.

## KINE 353 Coaching of Softball

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Theory of fundamental skills needed to coach softball with emphasis on knowledge of rules, strategies and skill analysis. **Prerequisites:** Grade of C or better in KINE 215.

## KINE 355 Coaching of Track

**Credits 2. 1 Lecture Hour. 2 Lab Hours.** Theory and practice of coaching fundamentals in track and field events. **Prerequisite:** Grade of C or better in KINE 215.

## KINE 370 Basic Biology of Performance for Coaches

**Credits 3. 3 Lecture Hours.** Fundamental knowledge in motor neuroscience, biomechanics, cardiovascular and skeletomuscular physiology, strength and conditioning and sport nutrition from an applied perspective for coaches. **Prerequisites:** Junior or senior classification.

## KINE 386 Sport Physiology

**Credits 3. 3 Lecture Hours.** Scientific physiological principles as they relate to sport and exercise in the preparation of current and future coaches; emphasis on cognitive, physiological knowledge and practical applications necessary to earn a creditable national certification; safely and effectively train athletic, fitness and general populations. **Prerequisites:** KINE 121 and KINE 213; grade of C or better in KINE 302.

## KINE 404 Coaching Psychology

**Credits 3. 3 Lecture Hours.** Mental aspects of coaching for performance improvement in athletic and exercise settings; focus on coaching applications of theoretical concepts including individual differences, motivation, team and group dynamics, leadership, performance enhancement, positive and negative health behaviors and youth development. **Prerequisite:** Junior or senior classification, or approval of instructor.

## KINE 406 Motor Learning and Skill Performance

**Credits 3. 3 Lecture Hours.** Learning in psychomotor domain; motor learning theories, physiological bases of skill behavior, motor and skill learning, state of performer and application of instructional techniques in motor learning and skill performance. **Prerequisite:** Grade of C or better in BIOL 319 and PHYS 201; concurrent enrollment BIOL 320; junior or senior classification.

## KINE 407 Motor Control and Learning Lab

**Credit 1. 2 Lab Hours.** Collection and analysis of measures of human performance; study of how humans control voluntary actions; extension of basic knowledge of behavioral and cognitive processes. **Prerequisites:** Junior or senior classification; grade of C or better or concurrent enrollment in KINE 406.

## KINE 425 Tests and Measurements

**Credits 3. 3 Lecture Hours.** Comprehensive examination of the conceptual and theoretical aspects of measurement and evaluation in the field of kinesiology; emphasis on the application of statistical techniques germane to measurement and evaluation. **Prerequisites:** Junior or senior classification; or approval of instructor for non-majors.

## KINE 426 Exercise Biomechanics

**Credits 3. 3 Lecture Hours.** An integrated, mechanistic study of biomechanics of human motion during physical activity and exercise; biology and mechanical properties of the human movement system including bones, tendons, ligaments, cartilage, skeletal muscles, joints and whole body systems investigated. **Prerequisite:** Grade of C or better in PHYS 201, BIOL 319, and BIOL 320; junior or senior classification.

## KINE 427 Therapeutic Principles

**Credits 3. 3 Lecture Hours.** Examination of human tissue types, characteristics, and physiology pertaining to injury, pain transmission, and the healing process; study of common therapeutic modalities such as ultrasound and electricity with emphasis on physiological mechanisms of effect. **Prerequisite:** Grade of C or better in BIOL 319, BIOL 320, and PHYS 201; junior or senior classification.

## KINE 428 Exercise Biomechanics Laboratory

**Credit 1. 2 Lab Hours.** Applied development of the mechanistic concepts of biomechanics of human motion during physical activity, performance and exercise; investigation of the biological and mechanical properties of the human movement system including bones, tendons, ligaments, cartilage, skeletal muscles, joints and whole body system. **Prerequisites:** Grade of C or better in KINE 426 or concurrent enrollment; grade of C or better in PHYS 201; junior or senior classification.

## KINE 429 Adapted Physical Activity

**Credits 3. 2 Lecture Hours. 2 Lab Hours.** Kinesiology for individuals with handicapping conditions; emphasis on cognitive recognition of such handicaps as postural deviations, emotional disturbances, convulsive disorders, vision and auditory problems, and other learning disability conditions. **Prerequisite:** Grade of C or better in HEFB 222/KNFB 222 or KNFB 222/HEFB 222; grade of C or better in BIOL 107 or BIOL 111; grade of C or better in PHYS 201 or CHEM 119; junior or senior classification.

## KINE 431 Ropes Course and Group Process

**Credits 3. 2 Lecture Hours. 2 Lab Hours.** Techniques of group facilitation for initiatives of ropes/challenge course events; activity presentation and sequencing, safety techniques and construction principles, and processing experiences for transfer of learning. **Prerequisite:** Junior or senior classification; approval of instructor.

## KINE 433 Physiology of Exercise

**Credits 3. 3 Lecture Hours.** Physiological bases of exercise and physical conditioning; measurement of metabolic efficiency during exercise, neuromuscular efficiency and body composition. **Prerequisite:** Grade of C or better in PHYS 201, BIOL 319, and BIOL 320; junior or senior classification.

## KINE 435 Physiology of Exercise Lab

**Credit 1. 2 Lab Hours.** Utilization of up-to-date equipment to provide a comprehensive understanding of the physiology relating to cardio-pulmonary, skeletal muscle and metabolic responses to aerobic and anaerobic exercise. **Prerequisite:** Grade of C or better in KINE 433 or concurrent enrollment; junior or senior classification.

## KINE 439 Exercise Evaluation and Prescription

**Credits 4. 3 Lecture Hours. 3 Lab Hours.** Theory and techniques for evaluation of human performance and cardiovascular disease risk factors in healthy and diseased populations; exercise prescription for disease prevention and rehabilitation. **Prerequisite:** Grade of C or better in KINE 433 or concurrent enrollment; junior or senior classification.

## KINE 440 Planning and Conduct of Human Subjects Research

**Credits 3. 3 Lecture Hours.** Principles of practical issues associated with human subjects research from a multidisciplinary approach with consideration of gender, race, ethnicity and vulnerable subjects on study design; discussion of the basics of clinical trial study design, recruitment materials, informed consent and assent procedures, questionnaires, and assessments, and case report forms; importance of medical oversight and participant safety. **Prerequisite:** Junior or senior classification.

## KINE 482 Seminar

**Credit 1. 1 Lecture Hour.** Acquaint students with current research and the research process in their chosen field of study (kinesiology). May be taken four times for credit. Must be taken on a satisfactory/unsatisfactory basis. **Prerequisites:** Grade of C or better in BIOL 319 and BIOL 320, or KINE 302 and KINE 306; junior or senior classification.

## KINE 483 Practicum in Kinesiology

**Credits 0 to 3. 0 to 2 Lecture Hours. 0 to 2 Lab Hours.** Participation and study in the areas of fitness assessment, exercise and/or sport programming, and fitness/sport administration; acquisition and practice of professional and/or clinical skills in kinesiology and/or coaching. **Prerequisite:** Senior classification; approval of instructor.

## KINE 484 Internship in Kinesiology

**Credits 0 to 12. 0 to 12 Other Hours.** Supervised internship with corporate fitness centers, rehabilitation centers, hospitals, recreation centers and similar agencies and organizations. **Prerequisites:** Grade of C or better in KINE 483; completion of all coursework.

## KINE 485 Directed Studies

**Credits 0 to 4. 0 to 4 Other Hours.** Special problems in kinesiology assigned to individual students or to groups. **Prerequisites:** Junior or senior classification; approval of instructor.

## KINE 489 Special Topics in...

**Credits 0 to 4. 0 to 4 Lecture Hours. 0 to 4 Lab Hours.** Selected topics in an identified area of kinesiology; also taught at Galveston campus. May be repeated for credit.

## KINE 491 Research

**Credits 0 to 4. 0 to 4 Other Hours.** Research conducted under the direction of faculty member in kinesiology. May be repeated 4 times for credit. **Prerequisites:** Junior or senior classification and approval of instructor.