

KINESIOLOGY (KIN) (KIN)

KIN 100 Concepts of Health and Fitness 3 cr

An introductory course designed to show students to contributions of physical activity, nutrition, weight control, stress control, environmental conditions, and injury prevention to preventive health. Students learn how to evaluate themselves, their physical and nutritional needs and how to design individual programs for healthy living.

Cross-Listed: PE 100

KIN 166 Movement-Rhythms and Dev Act 3 cr

Movement exploration experiences, developmental games, rhythmic and dance activities are explained, developed and practiced. Clinical or field experience required.

Cross-Listed: PE 166

KIN 201 Orientation to Kinesiology 3 cr

An overview of the field of Health, Physical Education, and Exercise Science. An introduction to the Department of HKS followed by survey of philosophical and historical aspects, and professional preparations standards of the specific fields.

Cross-Listed: PE 201

KIN 231 ARC Lifeguard Training 3 cr

Prepares the student for American Red Cross Lifeguard, CPR for the professional rescuer, and first aid certification. Emphasis is placed on emergency action plans, lifeguarding techniques and all forms of victim rescue. Prerequisites: Strong swimmers ONLY.

Cross-Listed: PE 231

KIN 263 Intro to Nutrition 3 cr

The study of human nutrition and nutrients in food and of their ingestion, digestion, absorption, transport, metabolism, interaction, and storage. emphasis is placed on energy balance, weight control, nutrition across the life span, food safety, food insecurity, and the links between food, nutrition and health.

KIN 278 Sport, Performance, & Exercise Psychology 3 cr

A study of the psychological and sociological aspects of sport and the relationship to human behavior.

Cross-Listed: PE 278

KIN 282 Intro to Athletic Training 3 cr

Survey of the basic techniques and practices of athletics training. Study includes prevention, recognition, care, and treatment of athletic injuries. Development of basic athletic training skills in the use of preventive and protective techniques of adhesive tape applications.

Cross-Listed: PE 282

KIN 351 Sports Skills 3 cr

The development of skills and the understanding of fundamentals and strategies in selected individual, dual, and team sports. Field experiences required. Proof of background check, fingerprinting and liability insurance is required. PE (P-12) majors only. Instructor permission is required.

Cross-Listed: PE 351

KIN 363 Sports Nutrition - W 3 cr

Basic nutritional principles are covered. Includes assessment of individual and/or group diets. The course is designed to optimize sport performance and/or body composition.

Prerequisite: (HS 263 Minimum Grade of D or KIN 263 Minimum Grade of D) and (EH 102 Minimum Grade of C or EH 105 Minimum Grade of C)

KIN 370 Basic Motor Learning 3 cr

Study of the psychological, experimental, and social aspects of learning in the psychomotor domain.

Cross-Listed: PE 370

KIN 372 Coaching Gymnastics 3 cr

History, theory, and fundamentals of coaching and officiating gymnastics.

Cross-Listed: PE 372

KIN 373 Coaching Volleyball 3 cr

History, theory, and fundamentals of coaching and officiating volleyball.

Cross-Listed: PE 373

KIN 374 Coaching Soccer 3 cr

History, theory, and fundamentals of coaching and officiating soccer.

Cross-Listed: PE 374

KIN 375 Coaching Football 3 cr

History, theory, and fundamentals of coaching and officiating football.

Cross-Listed: PE 375

KIN 376 Coaching Basketball 3 cr

History, theory, and fundamentals of coaching and officiating basketball.

Cross-Listed: PE 376

KIN 377 Coaching Baseball 3 cr

History, theory, and fundamentals of coaching and officiating baseball.

Cross-Listed: PE 377

KIN 378 Coaching Track and Field 3 cr

History, theory, and fundamentals of coaching and officiating track and field.

Cross-Listed: PE 378

KIN 380 Kinesiology 3 cr

Theory and application of the mechanical and anatomical principles of human movement.

Prerequisite: BMD 114 Minimum Grade of D or BMD 110 Minimum Grade of C or BMD 251 Minimum Grade of C

Cross-Listed: PE 380

KIN 381 Eval and Measurement in HPE 3 cr

Statistical procedures, evaluation, and interpretation, and use of tests and other measurement devices in health and physical education.

Cross-Listed: PE 381

KIN 429 School Lab Experience-PE 3 cr

Professional laboratory experiences involving observation and participation at local public schools. Admission to teacher candidacy required.

Corequisite: KIN 452

Cross-Listed: PE 429

KIN 450 Student Teaching-Hlth and PE 9 cr

Observation and supervised teaching with opportunity for study and discussion of problems and issues encountered in the 6-12 Health Education and P-12 Physical Education programs. Students will be placed with a person holding a valid teaching certificate in the appropriate field. Admission to teacher candidacy and completion of program and college prerequisites required.

Prerequisite: 5551 154 and 5091 149 and KIN 351 Minimum Grade of C and KIN 452 Minimum Grade of C and KIN 429 Minimum Grade of S and HS 460 Minimum Grade of C and HS 429 Minimum Grade of S and HS 340 Minimum Grade of C and HS 430 Minimum Grade of S

Cross-Listed: PE 450

KIN 452 Methods of Teaching PE-W 3 cr

Organizing materials and developing methods of teaching physical education in elementary, middle, and high schools. Field experiences required. Practical mini-teaching experiences in peer labs and local schools. Prerequisite: Admission to teacher candidacy. Co-requisite: KIN 429.

Corequisite: KIN 429

Cross-Listed: PE 452

KIN 460 Student Teaching Secondary 1-9 cr

Observation and supervised teaching with opportunity for study and discussion of problems encountered in secondary schools. Students will be placed with a person holding a valid teaching certificate in the appropriate field. Admission to teacher candidacy and completion of program and college prerequisites required.

Prerequisite: 5551 154 and HS 460 Minimum Grade of C and HS 340 Minimum Grade of C and HS 430 Minimum Grade of S

Cross-Listed: PE 460

KIN 461 PE for Atypical Child-Youth 3 cr

Principles and techniques for adapting physical education activities for children with special needs. Field experience required.

Cross-Listed: PE 461

KIN 462 Biochemical and Molecular Exer 3 cr

An advanced study of the biochemical and molecular aspects of exercise involving the bioenergetic pathways responsible for energy production. Concepts of cellular signaling pathways and gene expression associated with adaptations of skeletal muscle to exercise training are studied.

Prerequisite: KIN 476 Minimum Grade of D

KIN 463 Nutrition 3 cr

An in-depth study of educational concepts related to digestion, absorption, transportation and utilization of nutrients.

Prerequisite: KIN 263 Minimum Grade of D

Cross-Listed: KIN 563

KIN 470 Student Teaching P-12 Program 1-12 cr

Observation and supervised teaching with opportunity for study and discussion of problems encountered in the P-12 program. Students will be placed with a person holding a valid teaching certificate in the appropriate field. Admission to teacher candidacy and completion of program and college prerequisites required.

Prerequisite: 5091 149 and KIN 351 Minimum Grade of C and KIN 452 Minimum Grade of C and HS 460 Minimum Grade of C

Cross-Listed: PE 470

KIN 471 Exercise Management for Chronic Diseases & Disabilities 3 cr

This course is designed to provide a problem-oriented approach to exercise testing and prescription/programming for populations with chronic diseases or related disabilities.

Prerequisite: (KIN 476 Minimum Grade of D and KIN 476L Minimum Grade of D)

KIN 473 Problems in Health and PE 3 cr

Special problems in health and physical education are assigned to individuals and to groups of students.

Prerequisite: 5091 149 and KIN 351 Minimum Grade of C and KIN 452 Minimum Grade of C and KIN 460 Minimum Grade of C

Cross-Listed: PE 473

KIN 474 Sport and Fitness Conditioning 3 cr

Study of the theory, principles, methods, and techniques in the development, implementation, and evaluation of various strength and conditioning programs designed to enhance athletic performance and improve physical fitness. The conditioning needs of various populations with disease and degenerative conditions will be examined.

Prerequisite: (PE 102 (may be taken concurrently) Minimum Grade of D and KIN 380 (may be taken concurrently) Minimum Grade of D) and (BMD 110 Minimum Grade of C or BMD 114 Minimum Grade of D or BMD 251 Minimum Grade of C)

Cross-Listed: PE 474

KIN 475 Org-Admin Hlth and PE-W 3 cr

Planning, policies, administrative/management functions and duties in health and physical education programs.

Cross-Listed: PE 475

KIN 476 Exercise Physiology 3 cr

The study of the body's physiological responses and adaptations to exercise and training.

Prerequisite: (KIN 100 Minimum Grade of C and HS 170 Minimum Grade of C and BMD 251 Minimum Grade of C and BMD 252 Minimum Grade of C)

Cross-Listed: PE 476

KIN 476L Exercise Physiology Lab 1 cr

Laboratory component associated with KIN 476 that must be taken concurrently. Hands-on, practical experiences involving basic laboratory techniques and procedures used in exercise physiology are utilized in this course. It will emphasize the importance of following laboratory protocols and appropriately evaluating and interpreting results from health and fitness assessments.

Prerequisite: (KIN 100 Minimum Grade of C and HS 170 Minimum Grade of C and BMD 251 Minimum Grade of C and BMD 252 Minimum Grade of C)

Corequisite: KIN 476

KIN 477 Water Safety Instructor 3 cr

Trains prospective candidates for American Red Cross Water Safety Instructor certification. Candidates will learn how to teach all levels of swimming and basic diving to students of all ages. How to organize classes, use lesson plans and practice teaching skills. Prerequisite: Proficient swimmer in all seven strokes. See Instructor for specific skill requirements.

Cross-Listed: PE 477

KIN 478 Coaching Theory 3 cr

Introduction to profession of coaching. Topics include: physical, mental and organizational preparation, teaching strategies (individual and team aspects), legal liability, officiating, and national guidelines.

Cross-Listed: PE 478

KIN 479 Fit Assess-Exercise Prescript 3 cr

Through didactic study and laboratory participation, the student will develop to knowledge base and clinical skills to assess physical fitness and plan exercise prescriptions for apparently healthy individuals.

Prerequisite: KIN 476 Minimum Grade of D or PE 476 Minimum Grade of D

Cross-Listed: PE 479

KIN 479L Fit Assess-Exc Prescript Lab 1 cr

Laboratory component associated with KIN 479 that must be taken concurrently. Hands-on, practical experiences involving techniques and procedures used in selecting and administering exercise and fitness assessments, evaluating and interpreting results, and drafting exercise prescriptions for apparently healthy populations are provided.

Prerequisite: (KIN 476 Minimum Grade of D and KIN 476L Minimum Grade of D)

Corequisite: KIN 479

KIN 480 Therapeutic Exercise 3 cr

Theory, current research, principles, application and techniques of rehabilitation used to treat injuries to athletes and the physically active across the life span are studied. Psychological and physical parameters of rehabilitation and exercise conditioning are presented.

Cross-Listed: PE 480

KIN 482 Advanced Athletic Training 3 cr

Advanced and contemporary topics, issues, and applications in athletic training. Admission to candidacy required.

Prerequisite: KIN 380 Minimum Grade of D

Cross-Listed: PE 482

KIN 483 Clinical Exercise Testing and Prescription 3 cr

The development of competencies necessary to administer graded exercise tests and prescribe appropriate exercise programs for various populations, based upon clinical observations and physiological data.

Prerequisite: (KIN 479 Minimum Grade of D and KIN 479L Minimum Grade of D)

KIN 484 Apps in Sports Conditioning 3 cr

Through didactic study and physical activity participation, the student will develop the knowledge base and skills in fundamental and advanced exercise theory and techniques in sport and fitness conditioning with application to program design and periodization of training.

Prerequisite: (KIN 474 Minimum Grade of D or PE 474 Minimum Grade of D) and (KIN 380 Minimum Grade of D or PE 380 Minimum Grade of D)

Cross-Listed: PE 484

KIN 486 Advanced Exercise Physiology 3 cr

Detailed analysis of the underlying principles of the physiological and biochemical responses of the human body to exercise and adaptations to exercise training.

Prerequisite: PE 476 Minimum Grade of C or KIN 476 Minimum Grade of D

KIN 490 Special Topics 3 cr

A varying content course treating different aspects of health, kinesiology, and sport. May be repeated for credit when courses content varies.

Cross-Listed: PE 490

KIN 494 Directed Studies 1-3 cr

Directed research and/or project. No more than two directed studies can be counted towards the bachelor's degree, HKS advisor approval required.

Cross-Listed: PE 494

KIN 495 Internship 1-12 cr

Observation and supervised practicum experiences in a professional setting. May be repeated for credit not to exceed 12 hours. HKS advisor approval required.

Prerequisite: (KIN 476 Minimum Grade of D)

Cross-Listed: PE 495

KIN 499 Senior Honors Thesis-H 3-6 cr

Experiences in planning, conducting, and reporting a research project relevant to the fields of Health, Kinesiology, and Sport. The project, mentored by HKS faculty, is required for Honors recognition and may be repeated for up to six credit hours. Prerequisites: Participant in Honors Program and approval of Department and Project Chairs required.

Cross-Listed: PE 498

KIN 500 Admin of Hlth & Phys Ed & Sprt 3 cr

A study of the principles, techniques, and methods used in management and supervision of health and physical education and sport in schools and colleges.

Cross-Listed: HPE 500

KIN 503 Evaluation of Teach and Learn 3 cr

Measurement and evaluation of student progress and teaching effectiveness in the psychomotor domain.

Cross-Listed: HPE 503

KIN 505 Research Methods - HKS 3 cr

This course provides opportunities for critical interdisciplinary evaluation of current research trends and controversies, research methodology and evaluation with emphasis on the elements of the research process, and the examination of landmark research studies in the fields of Health, Kinesiology, and Sport.

Cross-Listed: HPE 505

KIN 506 Physical Education Curriculum 3 cr

An overview of the physical education curriculum, its foundations, critical issues, and modern trends. It explores curriculum content areas of scheduling administration, teaching methods, and various standards and procedures for evaluation.

Cross-Listed: HPE 506

KIN 516 Exercise Physiology 3 cr

Advanced study of the theories, current research, and under-lying principles of the physiological responses and adaptations of the human body to exercise and training.

Cross-Listed: HPE 516

KIN 521 Motor Learning 3 cr

Theories and applications of the foundations of learning motor skills and presented .

Cross-Listed: HPE 521

KIN 530 Seminar in Health and Phys Ed 3 cr

Professional growth through in-depth experiences in the presentation of problems and formal papers, with emphasis on guided discussions and research criticism.

Cross-Listed: HPE 530

KIN 540 Cardiovas Resps Adapt Excerc 3 cr

Concentrated study of cardiovascular and respiratory systems including their structure, regulation, and integration with emphasis on physiological responses and adaptations to exercise and training, optimization of performance, overtraining and environmental influences, and aerobic exercise program design.

Cross-Listed: HPE 540

KIN 550 Perceptual-Motor Dev Children 3 cr

Designed to give the classroom teacher, special educator and physical educator a background in perceptual-motor development and training in infants and children.

Cross-Listed: HPE 550

KIN 552 Methods of Teaching PE 3 cr

Organizing materials and developing methods of teaching physical education in elementary, middle, and high schools. Field experience required. Practical mini-teaching experiences in peer labs and local schools.

KIN 562 Biochem & Molec Exer & Nutr 3 cr

This graduate level course is designed to provide study of the oxidative and non-oxidative pathways which provide energy during acute exercise within skeletal muscle. Emphasis will be placed on how these biochemical pathways utilize major fuel molecules (fat, carbohydrate, protein) to produce energy for work; how these pathways adapt to exercise training; and how the pathways are affected by exercise intensity, duration, and feeding state. The course will also include topics regarding lactate formation and utilization, whole-body metabolism, lipolysis within adipose cells, and blood glucose maintenance. Further, an overview of molecular biology concepts of gene transcription and protein synthesis in relation to exercise adaptation will be integrated into the course.

KIN 563 Nutrition 3 cr

An in-depth study of educational concepts related to digestion, absorption, transportation and utilization of nutrients.

KIN 571 Exer Mgt Chronic Disease/Disab 3 cr

This course is designed to provide a problem-oriented approach to exercise testing and prescription/programming for special needs populations.

Cross-Listed: HPE 571

KIN 572 Neuromuscular & Biomechanical Principles in Exercise 3 cr

An examination of the relationship of fundamental neuromuscular and mechanical principles of human movement as applied to sport performance, fitness, and injury prevention through observation of common activities.

Cross-Listed: HPE 572

KIN 574 Sport and Fitness Conditioning 3 cr

Advanced study of the scientific theory, principles, methods, and techniques in the development, implementation, and evaluation of various strength and conditioning programs designed to enhance athletic performance. Instructor permission is required.

KIN 579 Fitness Assessment-Exer Presc 3 cr

Fitness Assessment and Exercise Prescription reviews the advanced principles of exercise testing and prescription for at risk and health adult populations including health appraisal, risk assessment, and interpretation of data. Assessment results are utilized in designing training programs and recommending lifestyle changes for enhancing health, fitness, and performance. The ACSM Exercise Guidelines are emphasized. This course is dually listed with an equivalent 400 level course (KIN 479). Instructor permission is required.

Cross-Listed: HPE 579

KIN 583 Clinical Ex Test & Prescript 3 cr

The development of competencies necessary to administer graded exercise tests and prescribe appropriate exercise programs for various populations, based upon clinical observations and physiological data.

Cross-Listed: HPE 570, KIN 570

KIN 590 Special Topics- 3-6 cr

A varying-content course treating various aspects of health, kinesiology, and sport. May be repeated for credit when course content varies.

Cross-Listed: HPE 595

KIN 594 Directed Study and Research 1-3 cr

Students explore, through directed study and research, problems and issues of special interest or significance in Health, Kinesiology, and Sport. Not more than three semester hours of any departmental 594 courses can be accepted toward a degree program.

Cross-Listed: HPE 594

KIN 595 Internship 3-6 cr

A supervised learning experience in a health, kinesiology, or sport setting. Provides the student an opportunity to apply theories and concepts learned during the graduate program. No more than six semester hours may be taken. HKS advisor approval required.

Cross-Listed: HPE 595

KIN 599 Thesis 1-9 cr

A student selects a project, study, or investigation in health and/or kinesiology. Such project forms the basis for the thesis. A committee will give guidance during the investigation and the writing of the thesis.

Cross-Listed: HPE 599

KIN 601 Biomech Found Human Movement 3 cr

This course is designed to provide students with an understanding of how to use various technologies in a biomechanics lab for measuring kinematics. Along with making measurements, students will also learn how to perform the calculations involved in analysis.

Cross-Listed: HPE 601

KIN 602 Techniques of Supervision PE 3 cr

Course is designed to familiarize the student with the principles, problems, and techniques, involved in supervision.

Cross-Listed: HPE 602

KIN 603 Adv Measurement-Eval in HKS 3 cr

Measurement and evaluation in the areas of strength, body composition, flexibility, endurance, general motor capacity, perceptual motor-functions, and anthropometrics.

Cross-Listed: HPE 603

KIN 681 Current Topics in Exercise Science and Performance Nutrition 3 cr

Advanced study of current scientific literature in the area of exercise science and performance nutrition. A significant amount of reading and critical analysis of the most current peer-reviewed publications within the field is required. Emphasis is placed on demonstrating an understanding of the rationale for each study, methods and statistical analyses employed, and the results reported along with their application within the broader field of study.

KIN 694 Directed Study and Research 1-3 cr

Through directed study and research, problems and issues of special interest or significance in health and/or kinesiology are explored. No more than three semester hours of any department 694 courses can be accepted toward a degree program.

Cross-Listed: HPE 694

KIN 695 Internship 3-9 cr

A supervised field study investigation in a candidate's work setting. The student will conduct an investigation, apply concepts and skills learned during the program.

Cross-Listed: HPE 695

KIN 699 Research Project 1-6 cr

A supervised research project or investigation. The student will conduct a research project or investigation applying concepts and skills applicable to Health, Kinesiology, and Sport. May be taken more than one semester; total cannot exceed six semester hours.

Cross-Listed: HPE 699

KIN 799 Dissertation 1-6 cr

With the guidance of a faculty mentor and committee, doctoral students will select and carry out a research project, study, or investigation in exercise science and/or performance nutrition. such project forms the basis for the dissertation. The student will demonstrate the ability to become an independent researcher by successfully completing the project and formally presenting and defending a written dissertation to their committee.