

SPORTS MEDICINE AND EXERCISE PHYSIOLOGY

Contact Information

Kinesiology

<https://kinesiology.rice.edu>

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Sports Medicine and Exercise Physiology is a major offered by the Kinesiology (KINE) Department. The goal of the sports medicine and exercise physiology major is to provide a strong foundation in basic science and interface this with the study of the human body and application to human movement, performance, and exercise. This major provides a foundation for continued studies in graduate school, allied health, physical therapy, or medicine. Graduates are also prepared to pursue exercise or wellness careers in fitness or sport settings.

Bachelor's Programs

- Bachelor of Arts (BA) Degree with a Major in Sports Medicine and Exercise Physiology (<https://ga.rice.edu/programs-study/departments-programs/natural-sciences/sports-medicine-exercise-physiology/sports-medicine-exercise-physiology-ba/>)

Sports Medicine and Exercise Physiology does not currently offer an academic program at the graduate level.

Chair

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For Rice University degree-granting programs:

To view the list of official course offerings, please see [Rice's](#)

[Course Catalog](https://courses.rice.edu/admweb/!SWKSCAT.cat?p_action=cata) (https://courses.rice.edu/admweb/!SWKSCAT.cat?p_action=cata).

To view the most recent semester's course schedule, please see [Rice's](#) [Course Schedule](https://courses.rice.edu/admweb/!SWKSCAT.cat) (<https://courses.rice.edu/admweb/!SWKSCAT.cat>).

Emergency Med Studies/Practice (EMSP)

EMSP 238 - SPECIAL TOPICS

Short Title: SPECIAL TOPICS

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Internship/Practicum, Laboratory, Lecture, Seminar, Independent Study

Credit Hours: 1-4

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.

EMSP 281 - EMT-B: INTRODUCTION TO EMERGENCY CARE

Short Title: EMT-B INTRO TO EMERGENCY CARE

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Lecture/Laboratory

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: This course is a state-sanctioned EMT-B Certification course which includes practical and didactic exploration into pre-hospital care. This class culminates with a national certification to practice pre-hospital care on the EMT-B level. This course will discuss anatomy, body systems, and the biochemical basis of emergency intervention in addition to practical application of EMT-B skills. Formerly HEAL 308 and BIOS 281 and NSCI 281. Instructor Permission Required.

EMSP 282 - ADVANCED EMT**Short Title:** ADVANCED EMT**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture/Laboratory**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Continuation of EMSP 281, Emergency Care. Formerly BIOS 282, HEAL 310, and NSCI 282. Instructor Permission Required.**EMSP 375 - EMS INCHARGE LEADERSHIP COURSE****Short Title:** EMS INCHARGE LEADERSHIP COURSE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Independent Study**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Students preparing to hold leadership positions in EMS will expand their competency in emergency services, including emergency management and incident response, in addition to improving patient care and leadership skills. Participants will achieve certification in national emergency services courses, and will work as a team to manage a major event. Formerly UNIV 275. Instructor Permission Required.**EMSP 477 - SPECIAL TOPICS****Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar, Lecture, Laboratory, Internship/Practicum**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.**EMSP 491 - EMERGENCY MEDICAL SERVICES RESEARCH COURSE****Short Title:** EMS RESEARCH COURSE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** EMSP 491 is an independent program of study for students interested in research in prehospital medicine. All students will complete a research project under the supervision of a physician faculty member from Baylor College of Medicine. Projects may vary based on each student's interest and faculty projects. Formerly NSCI 491. Instructor Permission Required. Repeatable for Credit.**EMSP 492 - EMERGENCY MEDICAL SERVICES RESEARCH COURSE****Short Title:** EMS RESEARCH COURSE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** EMSP 492 is an independent program of study for students interested in research in prehospital medicine. All students will complete a research project under the supervision of a physician faculty member from Baylor College of Medicine. Projects may vary based on each student's interest and faculty projects. Formerly NSCI 492. Instructor Permission Required. Repeatable for Credit.**EMSP 499 - EMT TEACHING PRACTICUM****Short Title:** EMT TEACHING PRACTICUM**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** This course is open to an undergraduate student who serves as an instructor for the Emergency Medical Technician course. As an instructor, he/she would need to participate in course planning, course assignments, and student evaluation. They would also be expected to present course material through preparing and delivering lectures, presentations, and practical skills instructions. Grade would be assigned based on student self-evaluation, class evaluation, and primary instructor assessment. Formerly NSCI 289. Instructor Permission Required. Repeatable for Credit.

Health Sciences (HEAL)

HEAL 103 - NUTRITION**Short Title:** NUTRITION**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Concepts underlying the science of nutrition: food composition, calories and needs for energy, special nutrients, and nutritional deficiencies.**HEAL 119 - INTRODUCTION TO HEALTH AND WELLNESS****Short Title:** INTRO TO HEALTH & WELLNESS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Designed to help students develop a greater understanding and appreciation of health and well being, as it relates to themselves and others around them, and for students to apply health and wellness knowledge in their personal life to improve their health.

HEAL 132 - MEDICAL TERMINOLOGY**Short Title:** MEDICAL TERMINOLOGY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** This course introduces the student interested in medical and health professions to a large vocabulary of medical language which develops skills in understanding and remembering new words. It describes word origins, basic terms in anatomy and terms pertaining to each body system as well as pharmacology and medical equipment, and many frequently used medical terms, abbreviations and symbols.**HEAL 208 - CHEMICAL ALTERATIONS OF BEHAVIOR****Short Title:** CHEM ALTERATIONS OF BEHAVIOR**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Examination of social, cultural psychological, physiological causes and effects of drug use and abuse. Individual, family, and community factors related to prevention and treatment will be addressed.**HEAL 212 - CONSUMER HEALTH AND THE MEDIA****Short Title:** CONSUMER HEALTH AND THE MEDIA**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Study of factual information and guidelines that enable consumers to act intelligently in selecting health products and services, with emphasis on the economic aspects of health.**HEAL 222 - PRINCIPLES OF PUBLIC AND COMMUNITY HEALTH****Short Title:** PRIN PUBLIC&COMMHEALTH**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment limited to students with a class of Freshman or Sophomore. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Principles of Public & Community Health examines aspects of the community that relate to health including health issues within community subgroups; identification and analysis of community health programs; organizational patterns and functions of voluntary and governmental health agencies and coordination of community health programs.**HEAL 238 - SPECIAL TOPICS****Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Activity Course, Intensive Learning Experience, Independent Study, Internship/Practicum, Laboratory, Lecture, Lecture/Laboratory, Research, Seminar, Studio**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.**HEAL 279 - HEALTH SCIENCES INTERNSHIP****Short Title:** HEAL INTERNSHIP**Department:** Kinesiology**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hours:** 1-3**Restrictions:** Enrollment limited to students with a class of Freshman or Sophomore. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level**Description:** Internship experience in Health Sciences for freshman and sophomore students Instructor Permission Required.**HEAL 306 - HUMAN SEXUALITY****Short Title:** HUMAN SEXUALITY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Designed to explore the physiological, psychological, and sociological parameters of human sexuality, while providing accurate information and helping students develop healthy attitudes toward sexuality. Cross-list: SWGS 306.**HEAL 313 - FOUNDATIONS OF HEALTH PROMOTION AND EDUCATION****Short Title:** FOUNDATIONS HEALTH PROM&EDUC**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Health Sciences. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** HEAL 222**Description:** Foundations of Health Promotion/Health Education is designed to introduce students to the discipline of health education and the practice of health promotion. The course explores critical issues in the field of health promotion, accountability and professional preparation, professional ethics, credentialing and the changing technology in the field. Intended for Health Sciences majors only.

HEAL 350 - UNDERSTANDING CANCER

Short Title: UNDERSTANDING CANCER

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: Examination of cancer from a biological, psychological and sociological perspective with emphasis on cancer epidemiology, prevention, and early detection.

HEAL 360 - VIOLENCE IN AMERICA: A PUBLIC HEALTH PERSPECTIVE

Short Title: VIOLENCE IN AMERICA

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Seminar

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: This course presents an overview of issues concerning violence using a public health perspective. Information will be presented and discussed concerning several domains pertinent to violence, including family violence, intimate partner violence, community violence, and workplace harassment.

HEAL 375 - THE BUILT ENVIRONMENT AND PUBLIC HEALTH

Short Title: ENVIRONMENT AND PUBLIC HEALTH

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Seminar

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description:

This interdisciplinary course reviews topics involved in characterizing the built environment and its impact on public health. The course encompasses economic, environmental, & social factor such as (a) community design, (b) public space governance, planning & management (c) broader functions such as access to food, housing, and transportation. Solutions to improve population health must include a focus on the built environment.

HEAL 379 - INTERNSHIP IN HEALTH SCIENCES

Short Title: INTERNSHIP IN HEALTH SCIENCES

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Internship/Practicum

Credit Hours: 1-3

Restrictions: Enrollment limited to students with a class of Junior or Senior. Enrollment is limited to students with a major in Health Sciences. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: Internship experience for upper-level Health Sciences majors. Department Permission Required. Repeatable for Credit.

HEAL 380 - DISPARITIES IN HEALTH IN AMERICA

Short Title: DISPARITIES IN HEALTH IN AMERICA

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: This course explores social, behavioral, and medical determinants (e.g., race and ethnicity, socioeconomic status, and sexual orientation) that influence health and health disparities within populations, as well as strategies to reduce and eliminate those disparities. The course incorporates perspectives from various disciplines, including public health, psychology, and medicine. Graduate/Undergraduate Equivalency: HEAL 580. Mutually Exclusive: Cannot register for HEAL 380 if student has credit for HEAL 580.

HEAL 403 - PUBLIC HEALTH NUTRITION

Short Title: PUBLIC HEALTH NUTRITION

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): HEAL 103

Description: This course explores the intersection of nutrition and public health, including the role of nutrition in promoting public and community health and vice versa. The course incorporates a socioecological framework to understand multiple levels of influence on dietary intake, food choices, and nutrition-related public health problems. Topics include dietary assessment, food insecurity, nutrition disparities, and nutrition policy. Recommended Prerequisite(s): HEAL 222

HEAL 407 - EPIDEMIOLOGY

Short Title: EPIDEMIOLOGY

Department: Kinesiology

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: Study of communicable, noncommunicable, and behavioral diseases with emphasis on the disease process and basic epidemiologic methods. Graduate/Undergraduate Equivalency: HEAL 507. Mutually Exclusive: Cannot register for HEAL 407 if student has credit for HEAL 507.

HEAL 412 - HEALTH CARE DELIVERY & POLICY IN THE UNITED STATES**Short Title:** HEALTH CARE DELIVERY & POLICY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** An in-depth look our current health delivery system intended to introduce student to the historic development, organization and characteristics of the health care delivery system; current payment and reimbursement systems; health insurance options; the functions of health care providers; and organizational patterns of health care facilities. Recommended Prerequisite(s): HEAL 222**HEAL 422 - THEORIES AND MODELS OF HEALTH BEHAVIOR****Short Title:** THEORY&MODELS HLTH BEHAVIOR**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** HEAL 222**Description:** Theories & Models of Health Behavior is designed for the student interested in public and community health or health psychology. This course examines the current theories and models of health behavior and their application to the field of health promotion/health education. Graduate/Undergraduate Equivalency: HEAL 522. Mutually Exclusive: Cannot register for HEAL 422 if student has credit for HEAL 522.**HEAL 460 - PLANNING AND EVALUATION OF HEALTH PROMOTION AND EDUCATION****Short Title:** PLAN/EVAL: HEALTH PROGRAMS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment limited to students with a class of Junior or Senior. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** HEAL 222**Description:** Planning & Evaluation of Health Promotion provides the student with the technical skills for planning and evaluation of health promotion, health education, and disease prevention programs including collection and analysis of both qualitative and quantitative data. Graduate/Undergraduate Equivalency: HEAL 560. Mutually Exclusive: Cannot register for HEAL 460 if student has credit for HEAL 560.**HEAL 477 - SPECIAL TOPICS****Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum, Seminar, Lecture, Laboratory**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.**HEAL 495 - INDEPENDENT RESEARCH IN HEALTH SCIENCES****Short Title:** INDEPENDENT RESEARCH**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 1-3**Restrictions:** Enrollment limited to students with a class of Junior or Senior. Enrollment is limited to students with a major in Health Sciences. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 319 and KINE 440**Description:** To provide the student with an opportunity to participate in a research project under the supervision of a Rice Kinesiology faculty member and/or an external researcher. Department Permission Required. Repeatable for Credit.**Course URL:** kinesiology.rice.edu (<http://kinesiology.rice.edu>)**HEAL 498 - SPECIAL TOPICS IN HEALTH SCIENCES****Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for credit. Repeatable for Credit.**HEAL 499 - TEACHING PRACTICUM IN HEALTH SCIENCES****Short Title:** TEACH PRACTICUM HEALTH SCIENCE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Students will assist in conducting a course in which they have previously excelled. The student will learn techniques in course management, instruction, and evaluation. Department Permission Required. Recommended prerequisite(s): Junior or Senior standing, declared major in Health Sciences, and at least an "A-" in the course serving as the practicum. Repeatable for Credit.**HEAL 507 - EPIDEMIOLOGY****Short Title:** EPIDEMIOLOGY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Study of communicable, noncommunicable, and behavioral diseases with emphasis on the disease process and basic epidemiologic methods. Graduate level students only. Instructor Permission Required. Graduate/Undergraduate Equivalency: HEAL 407. Mutually Exclusive: Cannot register for HEAL 507 if student has credit for HEAL 407.

HEAL 522 - THEORIES AND MODELS OF HEALTH BEHAVIOR**Short Title:** THEORY&MODELS HLTH BEHAVIOR**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Theories & Models of Health Behavior is designed for the student interested in public and community health or health psychology. This course examines the current theories and models of health behavior and their application to the field of health promotion/health education. Graduate level students only. Instructor Permission Required. Graduate/Undergraduate Equivalency: HEAL 422. Mutually Exclusive: Cannot register for HEAL 522 if student has credit for HEAL 422.

HEAL 560 - PLANNING AND EVALUATION OF HEALTH PROMOTION AND EDUCATION**Short Title:** PLAN/EVAL: HEALTH PROGRAMS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Planning & Evaluation of Health Promotion provides the student with the technical skills for planning and evaluation of health promotion, health education, and disease prevention programs including collection and analysis of both qualitative and quantitative data. Graduate level students only. Instructor Permission Required. Graduate/Undergraduate Equivalency: HEAL 460. Mutually Exclusive: Cannot register for HEAL 560 if student has credit for HEAL 460.

HEAL 580 - DISPARITIES IN HEALTH IN AMERICA**Short Title:** DISPARITIES IN HEALTH IN AMER**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: This course explores social, behavioral, and medical determinants (e.g., race and ethnicity, socioeconomic status, and sexual orientation) that influence health and health disparities within populations, as well as strategies to reduce and eliminate those disparities. The course incorporates perspectives from various disciplines, including public health, psychology, and medicine. Graduate level students only. Instructor Permission Required. Graduate/Undergraduate Equivalency: HEAL 380. Mutually Exclusive: Cannot register for HEAL 580 if student has credit for HEAL 380.

HEAL 677 - SPECIAL TOPICS**Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum, Laboratory, Lecture, Seminar, Independent Study**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Graduate or Visiting Graduate level students.**Course Level:** Graduate

Description: Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.

Kinesiology (KINE)

KINE 120 - SCIENTIFIC FOUNDATIONS OF KINESIOLOGY**Short Title:** FOUNDATIONS OF KINESIOLOGY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level

Description: An introduction to studies in the areas of human movement: anatomy and physiology, exercise physiology, biomechanics, motor learning and control, and psychological aspects of sport and exercise.

KINE 238 - SPECIAL TOPICS**Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Independent Study, Internship/Practicum, Laboratory, Lecture, Seminar, Activity Course, Lecture/Laboratory, Intensive Learning Experience, Research, Studio**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Lower-Level

Description: Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.

KINE 275 - INTERNSHIP IN SPORTS MEDICINE AND EXERCISE PHYSIOLOGY**Short Title:** KINE INTERNSHIP**Department:** Kinesiology**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hours:** 1-3

Restrictions: Enrollment limited to students with a class of Freshman or Sophomore. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: Internship experience in Sports Medicine and Exercise Physiology for freshman and sophomore students Repeatable for Credit.

KINE 300 - HUMAN ANATOMY WITH LAB**Short Title:** HUMAN ANATOMY WITH LAB**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture/Laboratory**Credit Hours:** 4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level

Description: An introduction to normal human anatomy structure and function. All major body systems will be examined in both lecture and laboratory format using a variety of physical and virtual models.

KINE 301 - HUMAN PHYSIOLOGY**Short Title:** HUMAN PHYSIOLOGY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group III**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** This course will address the fundamental principles of human physiology at the cell, tissue, organ, organ system, and organism levels. Emphasis will be placed on mechanisms of function and homeostasis as achieved through the coordinated function of homeostatic control systems.**KINE 302 - BIOMECHANICS****Short Title:** BIOMECHANICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 300**Description:** An introduction to the discipline of mechanics as it applies to biological systems. Primary emphasis is placed on humans and other vertebrate species. Topics covered include the kinematics and kinetics of movement, material and functional properties of musculoskeletal tissues and the integration of musculoskeletal function from molecules and cells to whole animals. Recommended prerequisite(s): KINE 321.**KINE 310 - PSYCHOLOGICAL ASPECTS OF SPORT AND EXERCISE****Short Title:** PSYC OF SPORT & EXERCISE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Examine the psychological foundations that underlie sport and exercise participation. Recommended Prerequisite(s): PSYC 101.**KINE 311 - MOTOR LEARNING****Short Title:** MOTOR LEARNING**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Designed to provide a basic understanding of the theories related to skill acquisition, development, and movement. Learners develop an understanding of the cognitive, behavioral, and neurological concepts needed to become skilled at movements. The course will also incorporate laboratory experiences in the physiological, neurological, and psychological factors of human movement.**KINE 319 - STATISTICS FOR THE HEALTH PROFESSIONAL****Short Title:** STATS FOR HEALTH PROFESSIONAL**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Topics include displaying and describing data, the normal curve, regression, statistical inference including parametric and non-parametric analyses, and hypothesis testing. Students also have the opportunity to analyze data using SPSS and Excel software.**KINE 320 - HUMAN PHYSIOLOGY LAB****Short Title:** HUMAN PHYSIOLOGY LAB**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Laboratory**Credit Hour:** 1**Restrictions:** Enrollment is limited to students with a major in Sports Medicine & Exercise Phy. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 301**Description:** This course provides a hands-on laboratory to demonstrate and apply in-depth human physiology concepts. Students will collect, analyze, and report data on physiological variables. Findings will be applied to key human physiology concepts including homeostasis, isolated and integrated functions of body systems, and response to activity and exercise.**KINE 321 - EXERCISE PHYSIOLOGY****Short Title:** EXERCISE PHYSIOLOGY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 300 and KINE 301**Description:** This course examines the acute and chronic effects of exercise on physiological functions. Topics include nutrition, energy transfer, fatigue, metabolism, disease, aging, preventative medicine, genetics, elite performance, ergogenic aids, exercise testing, and specificity of training.**KINE 326 - PHYSICAL ACTIVITY EPIDEMIOLOGY****Short Title:** PHYSICAL ACTIVITY EPIDEMIOLOGY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** This course provides an epidemiological foundation to exercise and physical activity research related to public health. The course is designed to present evidence of the positive effects of physical activity and exercise in preventing disease, disability, and increasing quality of life.

KINE 351 - ADVANCED HUMAN ANATOMY LAB**Short Title:** ADVANCED HUMAN ANATOMY LAB**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Laboratory**Credit Hour:** 1**Restrictions:** Enrollment is limited to students with a major in Sports Medicine & Exercise Phy. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 300**Description:** Study of the pro-sections and cadavers are used for learning and understanding human anatomy in a gross anatomy examination laboratory at BCM in the Texas Medical Center. Hands-on examination of human anatomy in this course provides supplemental practical experience for lectures in KINE 300, Human Anatomy courses.**KINE 375 - SPORTS MEDICINE & EXERCISE PHYSIOLOGY INTERNSHIP****Short Title:** SPORTS MEDICINE INTERNSHIP**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum**Credit Hours:** 1-3**Restrictions:** Enrollment limited to students with a class of Junior or Senior. Enrollment is limited to students with a major in Sports Medicine & Exercise Phy. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Internship experience for upperclassmen in the Sports Medicine and Exercise Physiology major. Department Permission Required. Repeatable for Credit.**KINE 403 - SPORT NUTRITION****Short Title:** SPORTS NUTRITION**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** HEAL 103**Description:** This course will address current scientific knowledge about common macronutrients, micronutrients, and supplements, and how they may enhance athletic performance. The course will also focus on the role of nutritional timing, volume, and periodization to achieve practical results in endurance, strength, power and speed. Recommended Prerequisite(s): KINE 321.**KINE 410 - CASE STUDIES IN HUMAN PERFORMANCE****Short Title:** CASE STUDIES HUMAN PERFORMANCE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** An advanced, multidisciplinary consideration of how humans perform. Class work will center around problem solving using a case study methodology.**KINE 412 - MOTOR CONTROL****Short Title:** MOTOR CONTROL**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 311**Description:** Exploration of the neurophysiological, behavioral, and biomechanical aspects of human movement and development.**KINE 415 - PSYCHOLOGICAL ASPECTS OF SPORTS INJURY & REHABILITATION****Short Title:** PSYCHOLOGY OF SPORT INJURY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** This course examines the psychological factors involved in sport-related injuries and the rehabilitation process. Topics include personal and situational factors influencing injury and recover, adherence to rehabilitation programs, social support, returning to play after injury, and the application of psychological interventions to optimize the recovery process. Recommended Prerequisite(s): KINE 310**KINE 419 - MOVEMENT DISORDERS****Short Title:** MOVEMENT DISORDERS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 300 and KINE 301 and KINE 311**Description:** This course offers an in-depth look into selected developmental, degenerative, and hyperkinetic movement disorders resulting in abnormal muscle tone and/or motor control. Multiple aspects of each disorder (presentation, treatment, and progression) will be considered through a variety of sources.

KINE 421 - ADVANCED TOPICS IN EXERCISE PHYSIOLOGY AND PREVENTIVE MEDICINE**Short Title:** ADV TOPICS IN EX PHYS & MED**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 321**Description:** This course is a seminar style course that examines acute and chronic effects of exercise stimuli on physiological adaptation as relevant to health, disease and human performance. Topics will vary depending on current issues in exercise physiology. Examples include metabolism, fatigue, diabetes, genetics, muscular dystrophy, orthopedics, cancer and cardiovascular disease. The course is intended for those with a background in biology and/or physiology and interest in exercise and health.**KINE 430 - SPORTS INJURY: EVALUATION, MANAGEMENT, AND TREATMENT****Short Title:** SPORTS INJURY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 300**Description:** Upper level course designed to provide students with practical application of basic science knowledge obtained in lower level courses within the department of Kinesiology. The course will address the management of common sports injuries from time of injury to return to play. At the end of the course, students will have a comprehensive understanding of athletic injuries and their management.**KINE 440 - RESEARCH METHODS****Short Title:** RESEARCH METHODS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 319**Description:** Designed to introduce students to research methods, statistical techniques, and topics appropriate for experimental research.**KINE 441 - MUSCLE PHYSIOLOGY AND PLASTICITY****Short Title:** MUSCLE PHYSIOLOGY&PLASTICITY**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 321**Description:** This course will specifically address cardiac and skeletal muscle physiology and plasticity when introduced to various stimuli. These stimuli include exercise, aging, injury, altitude, microgravity, heat, and pharmacological agents. An emphasis will be placed on practical application to health, disease, and performance enhancement.**KINE 477 - SPECIAL TOPICS****Short Title:** SPECIAL TOPICS**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Laboratory, Internship/Practicum, Lecture, Seminar, Lecture/Laboratory**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Topics and credit hours may vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.**KINE 490 - SEMINAR IN SPORTS MEDICINE****Short Title:** SEMINAR IN SPORTS MEDICINE**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Considers issues related to athletic injury including mechanisms, assessment, management, and rehabilitation.**KINE 495 - INDEPENDENT RESEARCH IN SPORTS MEDICINE & EXERCISE PHYSIOLOGY****Short Title:** INDEPENDENT RESEARCH**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 1-3**Restrictions:** Enrollment limited to students with a class of Junior or Senior. Enrollment is limited to students with a major in Sports Medicine & Exercise Phy. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 319 and KINE 440**Description:** To provide the student with an opportunity to participate in a research project under the supervision of a Rice Kinesiology faculty member and/or an external researcher. Department Permission Required. Recommended Prerequisite(s): KINE 319 and KINE 440. Repeatable for Credit.

KINE 498 - SPECIAL TOPICS IN SPORTS MEDICINE**Short Title:** SPECIAL TOPICS IN SPORTS MED**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** KINE 321**Description:** This course is designed to provide students with a foundation of exercise testing and prescription. It will cover the many parameters of fitness assessment, including cardiorespiratory fitness, muscular strength and endurance, and body composition. The course will incorporate both lectures and lab based activities. Repeatable for Credit.**KINE 499 - TEACHING PRACTICUM IN SPORTS MEDICINE & EXERCISE PHYSIOLOGY****Short Title:** TEACHING PRACTICUM**Department:** Kinesiology**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Students will assist in conducting a course in which they have previously excelled. The student will learn techniques in course management, instruction, and evaluation. Department Permission Required. Recommended prerequisite(s): Junior or Senior standing, declared major in Sports Medicine & Exercise Physiology, and at least an "A-" in the course serving as the practicum. Repeatable for Credit.

Description and Code Legend

Note: Internally, the university uses the following descriptions, codes, and abbreviations for this academic program. The following is a quick reference:

Course Catalog/Schedule

- Course offerings/subject code for Emergency Medical Services/ Practice: EMSP
- Course offerings/subject code for Health Sciences: HEAL
- Course offerings/subject code for Kinesiology: KINE

Department Description and Code

- Kinesiology: KINE

Undergraduate Degree Description and Code

- Bachelor of Arts degree: BA

Undergraduate Major Description and Code

- Major in Sports Medicine and Exercise Physiology: SMEP

CIP Code and Description ¹

- SMEP Major/Program: CIP Code/Title: 26.0908 - Exercise Physiology and Kinesiology

¹ Classification of Instructional Programs (CIP) 2020 Codes and Descriptions from the National Center for Education Statistics: <https://nces.ed.gov/ipeds/cipcode/>