

# KINESIOLOGY (KNES)

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## **KNES 100 WATER AEROBICS (2)**

Aerobic aquatic activities designed to improve knowledge, understanding and performance levels of cardiorespiratory fitness, muscular strength and endurance, flexibility, body composition and stress management. Not open to students who successfully completed PHEA 157.

## **KNES 101 SWIMMING I (0.5-1)**

A course for non-swimmers. Elements covered include personal safety, American crawl, elementary backstroke, side stroke, back crawl, deep water adjustment, and beginning diving. Not open to students who successfully completed KNES 165.

## **KNES 102 SELF DEFENSE (2)**

Development of student competence in personal assault prevention and street safety awareness.

## **KNES 103 RHYM/STEP AERO (2)**

Development of sufficient competency to promote active lifestyle, improve knowledge, and performance levels of cardiorespiratory fitness, agility, strength, endurance and flexibility.

## **KNES 104 BALLROOM DANCE (2)**

Development of sufficient competence for active lifestyle through ballroom dance.

## **KNES 105 JOGGING, CYCLING, SKATING (2)**

Development of sufficient competence to promote an active lifestyle through cardiovascular movement.

## **KNES 106 BLLIARDS, BOWLING, GOLF (2)**

Development of sufficient competence to promote an active lifestyle through playing of leisure time activities.

## **KNES 107 CARDIOVASCULAR FITNESS (3)**

A concentration on the physiological components of physical fitness and the effects of exercise upon the risk factors associated with cardiovascular diseases. Ten field trips. A three week workshop. Only taught in minimester.

## **KNES 108 BASKETBALL LAX SOCCER (2)**

Development of sufficient competence to promote active lifestyle through the playing of invasion games.

## **KNES 109 BADMINTON, TENNIS, VOLLEYBALL (2)**

Development of sufficient competence to promote active lifestyle through playing net games.

## **KNES 110 RACQUETBALL, SQUASH, HANDBALL (2)**

Development of sufficient competence to promote active lifestyle through playing of wall games.

## **KNES 119 BOWLING I (0.5-1)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 123 ELEM BACKPACKING I (1)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 124 INTRMED BCKPCKING (2)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 127 GOLF I (0.5-1)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 140 TRACK AND FIELD (1)**

Basic instruction of all track and field events and their application across the PreK-12 curriculum. Open to PHEC majors only.

## **KNES 143 SELF DEFENSE I (0.5)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 150 PERSONAL DEFENSE/WRESTLING (1)**

Skills, strategies, and developmentally appropriate activities for personal defense and wrestling. Open to PHEC majors only.

## **KNES 156 GYMNASTICS (1)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 163 AQUATIC FITNESS (2)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 165 BASIC SWIMMING (1)**

Designed to teach a non-swimmer, beginner, or advanced beginner to develop intermediate level swimming and diving skills. Strokes presented include: front crawl; elementary backstroke; back crawl; and breast stroke.

## **KNES 182 FIELD/COURT I (1)**

Skills, strategies, and developmentally appropriate activities for the sports of soccer, basketball, and team handball. Open to PHEC majors only.

## **KNES 183 BLRM/FLK/SQRE DAN (1)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 184 FIELD/COURT II (1)**

Skills, strategies, and developmentally appropriate activities for the sports of hockey (field and floor), lacrosse and ultimate frisbee. Open to PHEC majors only.

## **KNES 196 INDEPENDNT STUDY (0.5-3)**

Directed study on specific topics in Kinesiology and related fields. Prerequisite: Consent of instructor and department chair.

## **KNES 202 NET/ WALL GAMES (1)**

Skills, strategies, and developmentally appropriate activities for the sports of tennis, badminton, and volleyball. Open to PHEC majors only.

## **KNES 207 FIELD HOCKEY I (0.5)**

For description and prerequisites, consult the Department of Kinesiology.

## **KNES 215 MEDICAL TERMINOLOGY FOR HEALTH PROFESSIONS AND MEDICAL CONDITIONS (3)**

Introduces the student to the detailed language of medicine and provides an overview of medical conditions for students entering a medical-related profession.

## **KNES 217 FUNCTIONAL ANATOMY (3)**

Investigation of the musculoskeletal system with regard to functional anatomy. Prerequisites: KNES 235 or KNES 297; BIOL 220 or BIOL 221/BIOL 221L; major in EXSC or FWL.

## **KNES 220 SPORT ACROSS THE LIFESPAN (3)**

Addresses philosophies of "sport for life" and long-term athlete development (LTAD). Prerequisite: major in FWL.

## **KNES 235 FOUNDATIONS OF FITNESS AND WELLNESS (3)**

Addresses the fundamental concepts of fitness and wellness as it pertains to physical activity and health. Core: The United States as a Nation.

**KNES 238 PHYSICAL FITNESS PROGRAMMING AND ASSESSMENT (3)**

Focuses on the design and evaluation of curricula and assessments for the improvement of health related physical fitness of students in grades PreK-12. Prerequisite: must be declared as a physical education teacher education (PHEC) major.

**KNES 239 PHYSICAL FITNESS ACTIVITIES (1)**

Development, administration, and evaluation of fitness activities for selected populations. Open to PHEC majors only.

**KNES 240 PEDAGOGY IN FIELD/COURT SKILLS AND STRATEGY (3)**

Focuses on teaching methodologies and performance of several field/court invasion games including ultimate, team handball, soccer, hockey, and lacrosse. Prerequisite: must be declared as a physical education teacher education (PHEC) major.

**KNES 242 PEDAGOGY IN STRIKING, FIELDING AND TARGET SKILLS AND STRATEGY (3)**

Examines the skills, strategies, developmentally appropriate activities, and analysis/evaluation process for teaching lifetime physical activities including both striking/fielding games and target games. Prerequisite: Must be declared as a physical education teacher education (PETE) major.

**KNES 244 PEDAGOGY IN CREATIVE MOVEMENT AND GYMNASTICS SKILLS AND STRATEGIES (3)**

Content, teaching methods and provision of safety measures for teaching creative movement/dance and gymnastics in a PreK-12 grade school setting. Prerequisite: must be declared as a physical education teacher education (PHEC) major.

**KNES 246 PEDAGOGY OF NET/WALL SKILLS & STRATEGIES (3)**

Focuses on teaching methodologies and performance of several sports in the net/wall skill classification including volleyball, tennis, table tennis, pickleball, and badminton. Prerequisite: Must be declared as a physical education teacher education (PHEC) major. Lab/Class fee will be assessed.

**KNES 247 OFFICIATING I (2)**

A study of the art of officiating through lectures, films, discussions, and practical application. Covers swimming, volleyball, wrestling, football, basketball, and field hockey.

**KNES 248 OFFICIATING II (2)**

A study of the art of officiating through lectures, films, discussions, and practical application. Covers track, softball, lacrosse, baseball, tennis, and gymnastics.

**KNES 249 PEDAGOGY IN TRACK & FIELD SKILLS AND STRATEGY, AND ADVENTURE EDUCATION (3)**

Focuses on teaching methodologies and performance of Track & Field skills and Adventure Education content and pedagogy. Prerequisite: must be declared as a physical education teacher education (PHEC) major.

**KNES 251 HISTORY OF SPORT IN AMERICA (3)**

Explores the history of American sport, emphasizing its interactions with political, economic, social, and cultural forces; introduces aspects of historical methodology. Core: The United States as a Nation.

**KNES 262 WTR SAFETY INST (3)**

For description and prerequisites, consult the Department of Kinesiology.

**KNES 263 SCUBA DIVING (1)**

For description and prerequisites, consult the Department of Kinesiology. Lab/Class fee will be assessed.

**KNES 265 FUNDAMENTALS IN HEALTH AND PHYSICAL FITNESS ASSESSMENT (3)**

Provides an integrated examination of the theory and methodology of health-related physical fitness testing. Allows for practical experience in health-related physical fitness testing and interpretation of assessment data for low- to moderate-risk healthy adults. Prerequisites: Successful completion of KNES 297 and BIOL 221 and BIOL 221L; and a college-level algebra course (options include MATH 115, MATH 119, MATH 211, or MATH 273); a qualifying math placement test score (score 20 or higher on BAT; score higher than 60 on ALEKS) may replace the college-level algebra course prerequisite. Lab/Class fee will be assessed.

**KNES 269 LIFEGUARD TRAINING (2)**

An advanced course in life guarding techniques for swimming pools and open-water beach areas.

**KNES 270 SPECIAL TOPICS IN PHYSICAL EDUCATION (1-3)**

Designed for study of special topics of current interest in physical education, athletics, and their related fields. Objectives and content for each topic are reviewed and approved by the physical education faculty. May be repeated for a maximum of 6 units provided a different topic is covered.

**KNES 271 SPECIAL TOPICS IN EXERCISE SCIENCE (1-3)**

Designed for study of special topics of current interest in exercise science. Objectives and content for each topic are reviewed and approved by the exercise science faculty. May be repeated for a maximum of 6 units provided a different topic is covered.

**KNES 280 INTRODUCTION TO SPORTS INDUSTRY (3)**

Trends, challenges, and opportunities in the sports industry. Open to SPMT majors only.

**KNES 285 SPORT: CROSS-CULTURAL PERSPECTIVE (3)**

Systematic study of sport from an anthropological perspective. Core: Global Perspectives.

**KNES 291 INTRODUCTION TO ATHLETIC TRAINING (3)**

Theory, laboratory, and clinical experiences designed to provide students with formal instruction and evaluation about the allied health profession of Athletic Training. Competencies and clinical proficiencies related to the practice of athletic training and prevention and immediate care of orthopedic related injuries are covered. Prerequisite: Pre-Athletic Training major.

**KNES 292 PHYSICAL EDUCATION TEACHER EDUCATION AS A PROFESSION (3)**

Provides an introduction to the field of Teaching in Physical Education to include historical and philosophical exploration and evaluation. Incorporates introductory planning and alignment with National, State, and Local standards. Prerequisite: physical education teacher education (PHEC) major.

**KNES 294 PHYSICAL EDUCATION ELEMENTARY CONTENT KNOWLEDGE AND PERFORMANCE I (3)**

Includes terminology, fundamental movement skills and associated teaching cues, and developmentally appropriate practice and assessment opportunities essential for teaching elementary physical education (PK-3). Emphasis on the movement education curricular approach. Prerequisite: must be declared as a physical education teacher education (PHEC) major.

**KNES 296 INDEPENDENT STUDY (0.5-3)**

Directed study on specific topics in Kinesiology and related fields. Prerequisite: Consent of instructor and department chair.

**KNES 297 FOUNDATIONS OF EXERCISE SCIENCE (3)**

Examination of the historical and cultural aspects of the discipline of exercise science, including an introduction to major sub-disciplines. Prerequisite: academic major EXSC or pre-ATTR.

**KNES 299 RESISTANCE TRAINING: TECHNIQUES AND PRINCIPLES (3)**

Examination of training and teaching techniques for resistance exercises that address the major muscle groups in the body. Prerequisites: BIOL 221; BIOL 221L; EXSC major. Lab/Class fee will be assessed.

**KNES 301 INTRODUCTION TO RECREATION AND LEISURE (3)**

Recreation and leisure related to individuals, special populations, and society. The impact of recreation and leisure concepts and theories on time and work. Prerequisites: KNES 235 or KNES 280; major in SPMT or AHLT-HWCE; or department consent.

**KNES 305 OUTDOOR EDUCATION: PHILOSOPHY AND METHODS (3)**

Examination of the rationale and basic structure of outdoor education programs. An investigation of effective teaching techniques and procedures for outdoor education. Field experiences are required (students may have to provide their own transportation and equipment). Utilizes an interdisciplinary approach and is team taught.

**KNES 307 TEACHING APPRENTICESHIP (0.5-1)**

Students with a high degree of competency may request to be assigned to assist a faculty master teacher in class instruction and evaluation. May be repeated for a maximum of 1 unit.

**KNES 309 TESTS AND MEASUREMENTS (3)**

Elementary statistical procedure as applied to exercise science and physical education measurement. Prerequisite: MATH 109 or higher (except MATH 204).

**KNES 310 ASSESSMENT IN PHYSICAL EDUCATION (3)**

Designed to develop comprehensive knowledge about the development, implementation, and evaluation of diverse assessments to examine students' (PreK-12) knowledge and performance in physical education in psychomotor, cognitive, and affective domains. Prerequisite: must be declared as a physical education teacher education (PHEC) major.

**KNES 311 BIOMECHANICS (3)**

Mechanical and anatomical analysis of movement in relation to human performance. Prerequisites: BIOL 221/ BIOL 221L [BIOL 213]; BIOL 222/ BIOL 222L [BIOL 214]; and college-level algebra course (options include MATH 115, MATH 119, MATH 211, or MATH 273); a qualifying math placement test score (score 20 or higher on BAT; score higher than 60 on ALEKS) may replace the college-level algebra course prerequisite.

**KNES 312 FUNDAMENTALS OF EXERCISE PHYSIOLOGY AND BIOMECHANICS (3)**

Fundamental concepts of physiology and biomechanics as it pertains to exercise and sport activity. Prerequisite: BIOL 220.

**KNES 313 PHYSIOLOGY OF EXERCISE (3)**

Application of principles of physiology to large muscle activity, with special emphasis on the interrelations of muscular, nervous, circulatory, and respiratory functions during exercise. Prerequisites: BIOL 221/ BIOL 221L (BIOL 213) & BIOL 222/ BIOL 222L (BIOL 214); CHEM 121/ CHEM 121L or CHEM 131/ CHEM 131L.

**KNES 315 CARE AND PREVENTION OF ATHLETIC INJURIES (3)**

Foundational knowledge regarding the nature and causes of the most common sports-related injuries. Prerequisite: KNES 217.

**KNES 316 LOWER EXTREMITY AND SPINE EVALUATION (4)**

Designed to provide the athletic training student with a foundation to effectively assess musculoskeletal injuries to the lower extremity and spine; fundamentals of determining injury severity, proper management and the ability to make an appropriate referral to other sports medicine professionals. Prerequisite: KNES 291, ATTR Major.

**KNES 317 MOTOR BEHAVIOR IN PHYS EDUCATION (3)**

Research of literature related to developmental movement patterns, and how movements are learned and controlled. Factors that influence the development, learning and control of movements will be explored. Applications of motor behavior concepts to teaching physical education will be examined and evaluated. Prerequisite: physical education teacher education (PHEC) major.

**KNES 318 SCIENTIFIC FOUNDATIONS OF STRENGTH TRAINING AND CONDITIONING (3)**

Examination of scientific principles that are fundamental to developing and implementing effective strength and conditioning programs. Prerequisites: BIOL 221; BIOL 221L; BIOL 222; BIOL 222L; declared EXSC major.

**KNES 320 CULTURE, HEALTH, AND THE CITY (3)**

Examination of social identity and social determinants of health. A review of the relationships between sociocultural diversity and urban health practices and outcomes. Prerequisites: sophomore standing; ENGL 102 or ENGL 190, or equivalent; or consent of instructor. Core: Metropolitan Perspectives.

**KNES 321 SCIENCE OF SPORT SUCCESS: CONTRIBUTIONS OF GENETICS AND PRACTICE (3)**

Study of elite athletic performance within broad scientific and societal contexts; ethics of identifying, classifying, and training athletes; approaches to the problems inherent in evaluating decisions emerging from scientific study of sport.

**KNES 324 TEACHING PHYSICAL EDUCATION IN ELEMENTARY SCHOOL (3)**

Responsibilities of the elementary school physical education teacher, including class organizational procedures, a variety of teaching methods, lesson and unit plan development, and content appropriate for the elementary school child. Includes observation and teaching experiences with elementary school children at various ages. Prerequisites for PHEC majors: KNES 290, KNES 283, KNES 284 and passing scores on Praxis I, SAT, ACT, or GRE. Prerequisites for Elementary Education majors: KNES 281 and KNES 282. Internship/Practicum fee will be assessed.

### **KNES 325 TEACHING PHYSICAL EDUCATION IN SECONDARY SCHOOL (3)**

Responsibilities of the secondary school physical education teacher, including class organizational procedures, variety of teaching methods, lesson and unit planning, and topics resulting from the observation/participation experience in a secondary school. Prerequisites: four of the following KNES courses: KNES 140, KNES 150, KNES 156, KNES 182, KNES 184, KNES 202, KNES 239 and KNES 324. Internship/Practicum fee will be assessed.

### **KNES 328 TESTS AND ASSESSMENTS FOR FITNESS AND ATHLETIC PERFORMANCE (3)**

Examination of tests and assessments for athletic performance with a focus on determining tests appropriate for specific populations. Prerequisites: BIOL 221; BIOL 221L; BIOL 222; BIOL 222L; KNES 313; KNES 318; declared EXSC major.

### **KNES 331 FOUNDATIONS OF COACHING (3)**

Develop essential principles of coaching to deliver high quality experiences in sport. Prerequisites: KNES 235 or KNES 280; major in SPMT or FWL.

### **KNES 333 SPORT MANAGEMENT (3)**

Managing an organization providing sport/fitness activities products or services. Prerequisites: ACCT 201, ACCT 202, and KNES 280.

### **KNES 337 ADVANCED SPORT COACHING: DEVELOPING PERFORMANCE IN ATHLETES AND TEAMS (3)**

Examines evidence-based practices in designing advanced technical and tactical training for athletes. Prerequisite: KNES 331.

### **KNES 341 CONCEPTS OF MOTOR LEARNING (3)**

Study of effects of sensation and perception, reaction time, knowledge of results, retention, transfer, physical and mental practice, and motivation on learning and performing motor skills. Prerequisite: PSYC 101.

### **KNES 345 SEMINAR AND FIELD EXPERIENCE IN SPORT MANAGEMENT (3)**

Professional practices necessary to be a successful sport manager, specifically focusing on professional development with an experiential component. Prerequisites: KNES 280; KNES 333 (may be taken concurrently).

### **KNES 349 THE MODERN OLYMPIC GAMES (3)**

A socio-historically based interpretation of the modern Olympic Games as athletic festival, social construction, cultural symbol, philosophic movement, and world stage phenomenon.

### **KNES 351 PHILOSOPHY: THE SPORT EXPERIENCE (3)**

Philosophy of sport and the body, including the major philosophical schools of thought and their implications on physical activity. Requires grade of C or better to fulfill Core requirement. Prerequisites: ENGL 102 or ENGL 190 or equivalent; junior/senior standing. Core: Advanced Writing Seminar.

### **KNES 353 SPORT & SOCIETY (3)**

Explores relationships between sport and social institutions. Requires grade of C or better to fulfill Core requirement. Prerequisites: ENGL 102 or ENGL 190 or equivalent and junior/senior standing. Core: Advanced Writing Seminar.

### **KNES 354 HONORS SPORT AND SOCIETY (3)**

Explores relationships between sport and social institutions. Requires grade of C or better to fulfill Core requirement. Prerequisites: Honors College admission; ENGL 102 or ENGL 190 or equivalent. Core: Advanced Writing Seminar.

### **KNES 355 PSYCHOLOGY OF SPORT (3)**

Addresses the psychological correlates of sport. Prerequisite: PSYC 101.

### **KNES 357 SPORT IN FILM (3)**

Meaning of sport in 20th century Western culture through film.

### **KNES 359 PSYCHOLOGY OF SPORT INJURY (3)**

Application of psychological research and theory to sport injury and sport injury rehabilitation. Prerequisite: PSYC 101.

### **KNES 361 EXERCISE PSYCHOLOGY (3)**

Contemporary research and theory, including exercise and fitness motives, psychological effects, theoretical models of exercise behavior, motivating behavior, cognitive and behavioral change strategies. Prerequisite: PSYC 101.

### **KNES 363 NUTRITION FOR EXERCISE AND SPORT (3)**

Addresses critical and practical aspects of nutrition related to exercise and sport. Prerequisites: BIOL 220 or BIOL 221/ BIOL 221L & BIOL 222/ BIOL 222L; major in EXSC or FWL.

### **KNES 364 CLINICAL EXERCISE ASSESSMENT AND PRESCRIPTION (3)**

Theoretical study and practical application of pre-, during, and post-exercise assessment methodology involved with completing functional and clinical exercise tolerance tests. Evaluative interpretation of graded exercise tolerance test data will be addressed along with methods of using data to write safe and effective exercise prescriptions for healthy and higher risk populations. Prerequisites: successful completion of KNES 265, KNES 297 and KNES 313; and a college-level algebra course (options include MATH 115, MATH 119, MATH 211, or MATH 273); a qualifying math placement test score (score 20 or higher on BAT; score higher than 60 on ALEKS) may replace the college-level algebra course prerequisite. Lab/Class fee will be assessed.

### **KNES 367 QUANTITATIVE RESEARCH METHODS (3)**

Introduction to the design, implementation and interpretation of quantitative research methods as they apply to Exercise Science. Prerequisites: a college-level algebra course (options include MATH 115, MATH 119, MATH 211, or MATH 273); a qualifying math placement test score (score 20 or higher on BAT; score higher than 60 on ALEKS) may replace the college-level algebra course prerequisite; Exercise Science or Athletic Training Major.

### **KNES 369 CLINICAL COMPETENCIES AND FIELDWORK IN EXERCISE SCIENCE (4)**

Examination of the clinical skills and competencies needed to perform a complete physical fitness assessment. Supervised opportunities to both observe and apply these skills and competencies will take place in a variety of professional settings. Corequisite: KNES 365. Prerequisites: KNES 297 and KNES 313.

### **KNES 371 FIELD EXPERIENCE IN EXERCISE SCIENCE (3)**

Prepare students to carry out research or applied experiences in exercise science and build awareness of novel, controversial and/or pressing issues within the field. May be taken twice for a total of six units.

**KNES 372 ORGANIZATION AND ADMINISTRATION OF PHYSICAL ACTIVITY PROGRAMS (3)**

Addresses the organizational and administrative aspects of physical activity program oversight. Prerequisite: KNES 331.

**KNES 381 BASIC CLINICAL ATHLETIC TRAINING I (2)**

Observe and perform professional skills under the supervision of a certified athletic trainer; focuses on psychomotor competencies and clinical proficiencies introduced in KNES 291. Prerequisites: KNES 316 (taken concurrently), Athletic Training major. Lab/Class fee will be assessed.

**KNES 382 BASIC CLINICAL ATHLETIC TRAINING II (2)**

Observation and performance of professional skills under the supervision of a certified athletic trainer; focuses on psychomotor competencies and clinical proficiencies from KNES 316. Corequisite: KNES 415. Prerequisites: KNES 316, Athletic Training Major.

**KNES 385 INTERMEDIATE CLINICAL ATHLETIC TRAINING I (2)**

Observation and performance of professional skills under the supervision of a certified athletic trainer; focuses on Competencies and Proficiencies from KNES 415. Corequisite: KNES 427. Prerequisites: KNES 415, Athletic Training Major.

**KNES 386 INTERMEDIATE CLINICAL ATHLETIC TRAINING II (2)**

Observation and performance of professional skills under the supervision of a certified athletic trainer; focuses on skills related to therapeutic modalities. Corequisite: KNES 428. Prerequisites: KNES 427 and Athletic Training Major.

**KNES 388 ADVANCED CLINICAL ATHLETIC TRAINING I (2)**

Application in a laboratory and clinical setting of the knowledge and skills introduced in KNES 427. Prerequisite: KNES 427, Athletic Training major.

**KNES 389 ADVANCED CLINICAL ATHLETIC TRAINING II (2)**

Observation and performance of professional skills under the supervision of a BOC Certified Athletic Trainer; focuses on competencies and proficiencies covered in KNES 432 and KNES 417. Prerequisite: Senior status Athletic Training major. Lab/Class fee will be assessed.

**KNES 390 SPORT AND GLOBALIZATION (3)**

Addresses the historical and cultural global impact of sport using the lens of sociology, globalization, and critical cultural studies. We will examine sport in a variety of different nations and global settings as well as discuss the most pressing issues regarding global sport. Prerequisite: KNES 280.

**KNES 391 SPORT EVENT MANAGEMENT (3)**

Theoretical issues and implementation of processes involved with the organization and management of a sport event. Prerequisite: KNES 280.

**KNES 393 A WORLD HISTORY OF SPORT TO 1900 (3)**

Explores sport and physical education in context of social, economic, and political influences. Focuses upon Greece, Rome, Western Europe to ca. 1900.

**KNES 395 INTERNSHIP IN SPORT MANAGEMENT (3)**

Provides fundamental theoretical and practical knowledge in management principles and techniques, managerial responsibilities, and issues confronting professionals in the sports industry. May be repeated for a maximum of 6 units. Prerequisite: KNES 333, junior/senior standing, special permission.

**KNES 396 INDEPENDENT STUDY (1-6)**

Directed study on specific topics in Kinesiology and related fields. Prerequisite: Consent of instructor and department chair.

**KNES 398 INTERNSHIP IN EXERCISE SCIENCE (3-6)**

Integrates knowledge and skills learned during course work in a professional work setting in the field of Exercise Science. Can be taken for 3 or 6 units. Prerequisite: KNES 265; KNES 313; consent of department; approval of the Internship Coordinator (IC); and minimum 2.50 cumulative GPA are required prior to enrollment.

**KNES 399 DIFFERENTIATED INTERNSHIP IN PHYSICAL EDUCATION (1-6)**

An experience in internship in addition to the regular student teaching experience. May be repeated for a maximum of 6 units.

**KNES 403 ORGANIZATION AND ADMINISTRATION OF INTRAMURALS (3)**

Permits students to acquire the skills of administration in the development and organization of intramural programs in schools and colleges.

**KNES 406 EXERCISE PRESCRIPTIONS AND PROGRAMMING FOR SPECIAL POPULATIONS (3)**

The impact of chronic disease, co-morbidity, age, and pregnancy on exercise prescription methodology and exercise program development. Prerequisites: KNES 313.

**KNES 407 ADVANCED PRINCIPLES OF STRENGTH AND CONDITIONING: PROGRAM DESIGN (3)**

Examines designing scientifically based strength training and conditioning programs for specific sports and athletes. Prerequisites: KNES 313; KNES 318; EXSC major.

**KNES 409 STRESS MANAGEMENT, TENSION CONTROL AND HUMAN PERFORMANCE (3)**

Presents information about the manifestation of stress and systematic programs for tension control. The correlates surrounding progressive muscle relaxation and biofeedback are explored in detail, as well as the neurological responses which produce tension responses. Lectures are combined with laboratory experiences in an effort to understand and practice relaxation techniques.

**KNES 410 CARDIOVASCULAR PHYSIOLOGY, DISEASE PREVENTION AND REHABILITATION (3)**

Addresses the physiological effects of exercise on the cardiovascular system and cardiovascular disease. Prerequisite: KNES 313.

**KNES 415 UPPER EXTREMITY AND SPINE EVALUATION (4)**

Designed to provide the athletic training student with a foundation to effectively assess musculoskeletal injuries to the upper extremity and spine; fundamentals of determining injury severity, proper management and the ability to make an appropriate referral to other medical professionals. Prerequisites: KNES 316, KNES 381, Athletic Training Major.

**KNES 417 ORGANIZATION AND ADMINISTRATION OF ATHLETIC TRAINING (3)**

Analysis and application of organizational skills and administrative structure of the athletic training profession, including record keeping, budgeting, and a history of athletic training. Requires grade of C or better to fulfill Core requirement. Prerequisites: ENGL 102 or ENGL 190 or equivalent; KNES 386 and KNES 427; senior status in athletic training major. Core: Advanced Writing Seminar.

**KNES 418 SPORT FACILITY MANAGEMENT AND OPERATIONS (3)**

Will examine the management of various types of sport facilities. Prerequisites: major in SPMT or FWL; junior/senior standing.

**KNES 420 ADVANCED EXERCISE PHYSIOLOGY (3)**

Application of principles of physiology to study the effect of aging, obesity, and exercise on the skeletal muscle, cardiovascular systems, and metabolic systems, and the effect of training and environment on performance. Prerequisite: KNES 313. Lab/Class fee will be assessed.

**KNES 423 ADAPTED PHYSICAL EDUCATION (3)**

Recognition of pupils with physical deviations and use of special or modified physical education activities. Prerequisite: KNES 311, KNES 324, or KNES 325. Internship/Practicum fee will be assessed.

**KNES 426 MOTOR DEVELOPMENT: INFANTS TO ADULTS (3)**

Research of literature in motor development and performance of the individual from infancy through adulthood. Impact of motor development on cognitive, affective and psychomotor development. Prerequisites: BIOL 221/BIOL 221L (BIOL 213) & BIOL 222/BIOL 222L (BIOL 214).

**KNES 427 THERAPEUTIC EXERCISE FOR MUSCULOSKELETAL INJURIES (4)**

Analysis and application of comprehensive therapeutic exercise techniques and the development of rehabilitation programs for physically active individuals. Average of 2.5 laboratory hours per week. Prerequisites: KNES 385, KNES 428, Athletic Training major.

**KNES 428 THERAPEUTIC MODALITIES FOR MUSCULOSKELETAL INJURIES (4)**

Analysis and application of modalities in the treatment and rehabilitation of musculoskeletal injuries. Prerequisites: Athletic Training major, KNES 415, KNES 382.

**KNES 431 SEMINAR IN ATHLETIC TRAINING (3)**

Analysis and application of athletic training knowledge, skills, attributes, and decision making proficiency; assessment of clinical applications of knowledge and skills pertaining to the athletic training education domains. Prerequisites: Athletic Training major, KNES 388, KNES 417, KNES 432.

**KNES 432 GENERAL MEDICAL ASPECTS (4)**

Study of pharmacotherapeutic agents and general medical conditions, disabilities, abnormalities, and diseases of physically active individuals; prevention, recognition, physical examination, management, and referral of common general medical conditions. Prerequisites: KNES 427 and KNES 386 ; Athletic Training major.

**KNES 437 SPORT AND THE MEDIA (3)**

Symbiotic relationship between sport and electronic/print media.

**KNES 441 THE AMERICAN WOMEN IN SPORT (3)**

Historical, physiological, psychological, sociological, and philosophical perspectives and societal attitudes toward women who participate in sport.

**KNES 445 SPORT MANAGEMENT INTERNSHIP (6-12)**

Internship in Sport Management. May be repeated, or enrolled concurrently, for a maximum of 12 units. Prerequisites: KNES 333; KNES 345; junior/senior standing; cumulative GPA of 2.0 or higher; academic major of SPMT.

**KNES 449 LEADERSHIP FOR SPORT PROFESSIONALS (3)**

Development of effective, personal leadership skills for coaches, athletic directors, managers, and others in the sport industry. Prerequisite: KNES 333 or KNES 372.

**KNES 451 INTERNSHIP IN FITNESS AND WELLNESS LEADERSHIP (3)**

Internship in Fitness and Wellness Leadership serving to integrate knowledge and skills learned during course work in an experiential learning opportunity. Prerequisite: KNES 372 and consent of department.

**KNES 452 SPORT MARKETING (3)**

Fundamental marketing theories and principles applied to selling of sports; focusing on the concepts and practices forming the knowledge base for effective marketing strategies in sports. Prerequisite: MKTG 341.

**KNES 454 SPORT SALES AND SPONSORSHIP (3)**

Selling and negotiating within the sport-business climate. Development, implementation, and evaluation of a sport sponsorship deal. Prerequisite: KNES 333 or KNES 452.

**KNES 455 PHYSICAL ACTIVITY PROGRAMMING FOR THE OLDER ADULT (3)**

Application of physiological, psychological, sociological, and motor learning principles to the development of physical activity programs for older adults.

**KNES 456 LEGAL AND ETHICAL ISSUES IN SPORT (3)**

Critical strategic analysis of legal and ethical issues in the sports industry. Prerequisite: KNES 333.

**KNES 457 PHYSIOLOGY OF AGING (3)**

Interaction of physical, psychological, social, and environmental systems in the aging process from the late-middle to old age. Prerequisite: KNES 313.

**KNES 458 APPLIED SPORT MARKETING (3)**

Provides students interested in the field of sport marketing with a practical experience working with a sporting organization so as to assist in their professional preparation. Prerequisite: grade of C or higher in KNES 452.

**KNES 460 CULTURAL ECONOMY OF SPORT (3)**

A theoretically-intensive investigation of the cultural significance and economic formations of contemporary sport in the context of a 21st-century global marketplace. Prerequisites: KNES 333 or permission from the Kinesiology Department.

**KNES 465 STRATEGIC SPORT COMMUNICATION (3)**

Designed to develop practical skills and competencies in sport communication. Prerequisite: declared sport management major with junior/senior standing or instructor permission.

### **KNES 469 ADVANCED WRITING FOR RESEARCH IN EXERCISE SCIENCE (3)**

Prepares students to read and interpret research in exercise science. Topics include scientific process, research questions and theories, literature review, research methods and measurement, data analysis, and reporting. Requires grade of C or better to fulfill Core requirement. Prerequisites: ENGL 102 or ENGL 190 or equivalent; KNES 313; KNES 367; major in EXSC; senior status. Core: Advanced Writing Seminar.

### **KNES 470 SELECTED TOPICS IN PHYSICAL EDUCATION (3)**

Workshop designed for study of special topics of current interest in physical education. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of 6 units provided a different topic is covered.

### **KNES 471 SELECTED TOPICS IN EXERCISE SCIENCE (3)**

Workshop designed for study of special topics of current interest in exercise science. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of 6 units provided a different topic is covered.

### **KNES 472 SELECTED TOPICS IN SPORT MANAGEMENT (3)**

Workshop designed for study of special topics of current interest in sport management. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of 6 units provided a different topic is covered. Prerequisite: junior/senior standing.

### **KNES 473 SELECTED TOPICS IN ATHLETIC TRAINING (3)**

Workshop designed for study of special topics of current interest in athletic training. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of 6 units provided a different topic is covered.

### **KNES 480 SEMINAR IN TEACHING PHYSICAL EDUCATION (1)**

Discussion and analysis of selected topics during the internship semester.

### **KNES 492 ELEMENTARY INTERNSHIP (6)**

Full-time practical experiences in observation, participation, and student teaching in elementary public schools under the guidance of master teachers and a university supervisor. Not open to students who have successfully completed ELED 392. Prerequisites: KNES 324, KNES 325 and KNES 423. Graded S/U. Internship/Practicum fee will be assessed.

### **KNES 493 SECONDARY INTERNSHIP (6)**

Full-time practical experience in observation, participation, and internship in secondary public schools under the guidance of master teachers and a university supervisor. Not open to students who have successfully completed SCED 392. Prerequisites: KNES 324, KNES 325 and KNES 423. Graded S/U. Internship/Practicum fee will be assessed.

### **KNES 494 TRAVEL STUDY (3)**

Study of selected physical education programs, practices, or facilities. Study group will be accompanied by TU Department of Kinesiology faculty member.

### **KNES 496 INDEPENDENT STUDY (0.5-3)**

Directed study on specific topics in Kinesiology and related fields. Prerequisite: Consent of instructor and department chair.