

# EXERCISE AND SPORT SCIENCE (PES)

Courses with a \* Laboratory required

## **PES-1010: Fitness and Wellness (1 hour)**

Evaluation of personal fitness and wellness and the development of a personalized physical training program. Fee: Required.

## **PES-1020: Fitness for College and Life (1 hour)**

Evaluation of personal fitness and the development of a personalized physical training program for college and life. Fee required. Students may not earn credit for this course and PES-1050.

## **PES-1030: Wellness in College and Community (1 hour)**

Evaluation of personal wellness and cultivation of wellness and wholeness in communities. Fee: Required. Students may not earn credit for this course and PES-1050.

## **PES-1050: Fitness and Wellness (2 hours)**

Evaluation of personal fitness and wellness and the development of a personalized physical training program for college and a personal wellness program for life. Fee required. Students may not earn credit for both this course and PES-1020, PES-1030, OR PES2000.

## **PES-1110: Neuromuscular Relaxation (.5 hours)**

The basis of the body's response to stress with emphasis on stress management and relaxation strategies. Practice in the technique of neuromuscular relaxation.

## **PES-1111: Yoga (1 hour)**

An introduction to basic yoga principles and practice through poses (asana), breathing techniques (pranayama), meditation (dhyana) and discussion (satsang). Participants will improve physical strength, flexibility and mental focus while developing techniques for relaxation and stress reduction. May be retaken for a maximum of two credits.

## **PES-1112: Yoga II (1 hour)**

An advancement of yoga principles and practice through poses (asana), breathing techniques (pranayama), meditation (Dyana) and discussion. Participants will improve physical strength, flexibility and mental focus while refining techniques for relaxation and stress reduction. Prerequisite: C or higher in PES-1111. May be retaken for a maximum of two credits.

## **PES-1115: Zumba (1 hour)**

This course integrates basic principles of aerobic, interval and body weight resistance training. Zumba provides an opportunity for non-dancers to participate in a group aerobics class that accommodates most fitness levels.

## **PES-1119: Weight Training and Cardiovascular Activities (2 hours)**

Participation in weight training and cardiovascular activities. Creation and application of general and individualized physical fitness training programs. Fulfills the major requirement for Human Performance programs. Includes a Lab.

## **PES-1121: First Aid Safety and Injury Prevention (2 hours)**

Basic course leading to certification in standard first aid and cardiopulmonary resuscitation. Lab required. Fee: Required.

## **PES-1212: Volleyball (1 hour)**

Skills, rules, strategies and participation.

## **PES-1213: Badminton (1 hour)**

Singles and doubles skills, rules, strategy and participation.

## **PES-1214: Tennis (1 hour)**

Singles and doubles skills, rules, strategy and participation.

## **PES-1224: Tennis/Badminton (1 hour)**

## **PES-1226: Golf (1 hour)**

Skills, rules, strategy and participation.

## **PES-1701: Self-Defense (1 hour)**

Students will learn strategies and skills to defend themselves against a physical assault against an unarmed or armed assailant(s).

## **PES-3200: Foundations of Exercise and Sport Science (3 hours)**

Nature and scope of physical education and sport, foundations and principles, careers and professional considerations.

## **PES-3210: Theories/Concepts of Health (3 hours)**

An introductory course to the fields of health education and promotion. This course will examine the history, theories, philosophies, ethics and future trends related to the field of health.

## **PES-3250: Consumer Health (2 hours)**

This course will examine consumer health issues providing an overview of concepts related to the marketing and advertising of health products and services and provide information to enable individuals to select health products and services intelligently.

## **PES-3400: Applied Anatomy and Physiology (4 hours)**

Structure and function of the human body with emphasis on the skeletal, muscular, endocrine, respiratory and circulatory systems. Applications made to gross motor activities. Fee: Required. Includes a Lab.

## **PES-3501: Principles of Coaching/Officiating (3 hours)**

Theories and principles for coaching in a variety of settings. Includes a Lab.

## **PES-3510: Coaching Softball and Baseball (1 hour)**

Fundamentals, theory and strategy. Includes a Lab.

## **PES-3520: Coaching Soccer (1 hour)**

Fundamentals, theory and strategy. Includes a Lab.

## **PES-3530: Coaching Volleyball (1 hour)**

Fundamentals, theory and strategy. Includes a Lab.

## **PES-3540: Coaching Basketball (1 hour)**

Fundamentals, theory and strategy. Includes a Lab.

## **PES-3550: Coaching Track and Field (1 hour)**

Fundamentals, theory and strategy. Includes a Lab.

## **PES-3560: Coaching Football (1 hour)**

Fundamentals, theory and strategy. Includes a Lab.

## **PES-3660: Kinesiology (3 hours)**

Study of musculoskeletal anatomy and how it relates to movement. Prerequisite: C or higher in BIO-2111 or PES-3400.

## **PES-3705: Prevention and Care of Athletic Injuries (3 hours)**

Acquaints students with the field of athletic training, overview of sports medicine, general terminology, basic assessment skills, injury prevention through screening and conditioning programs, taping/wrapping skills. Fee: Required. Prerequisite: C or higher in BIO-2111 or PES-3400. Includes a Lab.

## **PES-3810: Physical Activity for the Young Child (2 hours)**

Developmentally appropriate movement activities for young children that promote movement, motor skill development and fitness.

## **PES-3820: Group Fitness Theories and Methods (2 hours)**

Principles for developing and instructing effective and safe group fitness classes. Prerequisite: C or higher in PES-2111, BIO-2111 or PES-3400.

**PES-3830: Senior Fitness Theories and Methods (2 hours)**

Principles for developing and instructing effective and safe fitness classes for the aging body with understanding of implications of health-related diseases. Prerequisite: C or higher in BIO-2111 or PES-3400.

**PES-3990: Palpation Anatomy (3 hours)**

Exploration of medical terminology and gross anatomy through palpation of the human body. The musculoskeletal system will be reinforced through palpation as well as the basic concepts of muscle origins, insertions, innervations and actions. Prerequisite: C or higher in BIO-2111.

**PES-4101: General Nutrition (3 hours)**

The science of nourishing the body by providing the proper nutrients for maintenance of health. Study of dietary nutrients and toxicants and the role of nutrition in optimal health to provide sound, scientific knowledge on which to base wise nutritional choices. Prerequisite: C or higher in BIO-2111, PES-3400 or CHE-2300.

**PES-4110: Fitness Activities and Technology (2 hours)**

Analysis and laboratory experiences in the development of fitness activities for grades K-12 incorporating relevant technology for the physical education teacher.

**PES-4123: Exercise and Sport Nutrition (3 hours)**

Presentation and application of appropriate foundational nutrition relative to exercise, the reduction of disease, body composition and weight management. Prerequisite: PES-1010 and PES 4101 with a grade of a C or higher.

**PES-4200: Fitness Testing and Exercise Prescription (3 hours)**

Techniques for conducting fitness assessments and developing exercise prescriptions. Prepares the practitioner to develop personal fitness programs based on the results of fitness assessments and other relevant information. Computer applications. Prerequisite: C or higher in BIO-2111, or PES-3400.

**PES-4300: Community Health (2 hours)**

Examination of health and healthful living as it applies to the community, including economic, environmental and sociocultural issues. Programs for preventing and controlling health problems and the various community organizations that deal with these problems will also be investigated.

**PES-4310: Drug Education (3 hours)**

Provides basic knowledge of the physiological, psychological and sociological effects of drug use and abuse. Topics covered include drug use in society, how drugs work, prevention and treatment, and drug education curriculum issues.

**PES-4410: Biomechanics (3 hours)**

Function of articular, neuromuscular and skeletal systems in producing efficient movement. Application of mechanical principles in performing sport skills, dance and adaptive activities. Prerequisite: C or higher in BIO-2111 or PES-3400.

**PES-4420: Physiology of Exercise (3 hours)**

Scientific basis for the development of physical fitness and conditioning programs. Bioenergetics of human movement; physiological adjustment during and following exercise. Prerequisite: C or higher in BIO-2111, PES-3400. Fee: Required.

**PES-4431: Physical Growth/Motor Development (3 hours)**

Physical growth, motor skill acquisition and learning, and motor performance primarily from infancy through adolescence.

**PES-4625: Teaching Individual and Dual Sports Activities (3 hours)**

Analysis of skill and laboratory experience in the development of individual and dual sport activities. Rules and officiating techniques relevant to the sports included. Fee: Required. Prerequisite: C or higher in PES-3200. Includes a Lab.

**PES-4635: Teaching Team Sport Activities (3 hours)**

Analysis of skill and laboratory experience in the development of team sport activities. Rules and officiating techniques relevant to the sports included. Prerequisite: C or higher in PES-3200. Fee: Required. Includes a Lab.

**PES-4640: Teaching Dance Activities (2 hours)**

This course is an introduction to folk, square and social dance designed for students training to be physical educators with emphasis placed on skill adaptation, techniques as well as methodology in teaching rhythm activities for grades K-12. The course also meets the needs of students with an interest in dance and expressive movement. Includes a Lab.

**PES-4645: Adventure Education (3 hours)**

A teaching methods course designed to introduce the concepts of adventure education including lesson planning and facilitation, team building, communication and problem solving skills. Fee: Required.

**PES-4650: Physical Activities for Children with Special Needs (3 hours)**

Nature and characteristics of children with special needs; needs of and activities for special needs children; methods and materials for the development of physical education and other activity programs.

**PES-4660: Curriculum Design (2 hours)**

Theories and processes of curriculum development, implementation and assessment for the middle and secondary schools.

**PES-4730: Management of Physical Activity Programs (2 hours)**

Organization and administration of activity programs including physical education, health and wellness, and athletics. Includes a Lab.

**PES-4740: Measurement and Evaluation of Human Performance (3 hours)**

Theory, practice and analysis of tests and evaluation procedures related to human performance. Prerequisite: Junior or Senior standing.

**PES-4950: Independent Study in Physical Education (1-6 hours)**

Supervised field experience. Application of assessment tools and development of programs in clinical settings. Prerequisite: C or higher in PES-3400 and instructor permission.

**PES-4970: Sport and Fitness Practicum (6 hours)**

A supervised field experience. Application of assessment tools and development of programs in clinical settings. Prerequisite: C or higher in minimum of 24 hours completed in the major.

**PES-4980: Practicum: Health and Exercise Science (6 hours)**

A supervised field experience. Application of assessment tools and development of programs in clinical settings. Pre-requisite: Minimum of 16 hours completed in the major with no grade lower than C.

**PES-4981: Coaching Practicum (3 hours)**

Fundamentals, theory and strategy of a selected sport. Field experience required. Prerequisite: C or higher in BIO-2111 or PES-3400 and PES-3501, PES-3705, and PES-3510, PES-3520, PES-3530, PES-3540, PES-3550 or PES-3560.

**PES-4990: Applied Research in Exercise and Health Science (3 hours)**

A research methods course designed to apply the psychomotor and statistical measurement and evaluation techniques used throughout the student's prerequisite coursework through the completion of an applied research project in Exercise and Health Science. Prerequisite: PES 4740 Measurement and Evaluation or PSY 3310 Stat for the Behavioral Science with a C or better and senior standing.