

FITNESS, EXERCISE AND SPORTS

Grossnickle Hall, Room 323
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The mission of the Fitness, Exercise and Sports Department (<https://www.njcu.edu/academics/schools-colleges/college-professional-studies/departments/fitness-exercise-and-sports/>) is to provide students with the opportunity to gain specific knowledge pertaining to exercise and sport studies, develop a variety of movement skills, and adopt values that facilitate the attainment of autonomous behavior in lifetime fitness and wellness activities.

The Department's focus is to provide current and prospective students with an education that could lead to desirable employment and graduate-level education opportunities in a variety of exercise science related fields.

The Department offers a wide variety of theoretical and practical courses, as well as access to the latest technology in the Exercise Science field through our newly launched Movement Science Laboratory. Students have the opportunity to earn a Bachelor's in Exercise Science, while also choosing the pre-physical therapy track.

Besides, students interested in a Fitness, Exercise and Sports Minor, can choose the Wellness and Exercise Instruction Concentration, or the Coaching Concentration. Our courses' objectives are aligned with the credentialing requirements of the American College of Sports Medicine, and the National Strength and Conditioning Association, so our students can earn additional certifications as Group Exercise Instructors, Exercise Physiologists, Person Trainers, and Strength and Conditioning Specialists.

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Various discipline-specific concentrations that will prepare students for multiple fields of employment or areas of additional undergraduate/graduate study are noted below. Course requirements for each concentration are explained in detail. The requirements for graduation, in addition to completion of the major area, are listed on "Undergraduate Degree Requirements (<https://catalog.njcu.edu/undergraduate/undergraduate-degree-requirements/>)."

- Exercise Science, B.S. (<https://catalog.njcu.edu/undergraduate/professional-studies/fitness-exercise-sports/exercise-science-bs/>)
- Fitness, Exercise and Sports, Minor (<https://catalog.njcu.edu/undergraduate/professional-studies/fitness-exercise-sports/fitness-exercise-sports-minor/>)

Fitness, Exercise, and Sports (FES)

FES 1XX Fitness, Exercise & Sport Transfer Credit (0 Credits)

FES 2XX Fitness, Exercise & Sport Transfer Credit (0 Credits)

FES 104 Spinning (R) (2 Credits)

This is an indoor stationary cycling course. Using specially designed bicycles, participants are guided by instructor, through a simulated outdoor bike ride. Students of all fitness levels, age groups and gender population can participate. This course provides an efficient, low impact, high-energy group workout. The instructor integrates motivational techniques, driving music, camaraderie and visualization tools in one complete mind/body exercise program.

FES 105 Tai Chi I (2 Credits)

Tai Chi is an ancient art of self-defense practiced by monks during the Sung Dynasty (960-1278 B.C.E.). The practice includes synchronized a series of simple graceful movements promoting fitness, vitality in health and well-being. This course will introduce and expose students to basic cognitive and practical Tai Chi principles.

FES 107 Aerobic Dance & Conditioning (3 Credits)

Aerobic dance combines exercise with rhythmical activities. This course is designed to help students understand the basis of aerobic fitness and to provide information for developing a program of exercise that best fits the needs of individuals.

FES 111 Yoga I (2 Credits)

Yoga I teaches the union of opposite through basic practices. This course will introduce basic level of physical execution through sequencing of postures while incorporating breathing with postural variation. Students will learn how to integrate basic principles of yoga philosophy through application and practice which supports holistic teaching and learning.

FES 113 Yoga II (2 Credits)

Yoga II teaches the union of opposites through advanced practices. Students will explore higher levels of physical execution, transitions and sequencing of asanas while effectively incorporating advanced breathing with postural variation and imagery. The transition from practical philosophy to integrated application through continuous practice supports holistic teaching and learning.

Pre-Requisite(s): FES 105, Tai chi or FES 111, Yoga

FES 116 Swimming Level 1 (2 Credits)

This introductory course is designed for those who cannot swim or for those at a beginner's level of swimming. It includes the study and practice of basic swimming strokes and water safety.

FES 117 Swimming Level 2 (2 Credits)

The study and practice of basic swimming strokes and introduction to springboard diving are offered in this course. The additional skills of floating, treading water, turns, entry into the water and safety are included.

FES 118 Scuba Open Water Dive Course (3 Credits)

This course is performance based, teaching practical and theoretical aspects of scuba diving. Open Water Dives integrate principles and skills learned in Confined Water Dives as students apply both in the open water dive environment. Students who successfully perform learned skills at a designated dive site can receive International Certification.

FES 121 Pilates Flexibility Methods (3 Credits)

This course is focused on improving posture and eliminating unnecessary tension carried in the body through a system of exercises related to the anatomy and physical dynamics of the body. Students learn to recognize the superficial muscles and their actions by practicing alignment, stretching and massage techniques. Drawing and tracing surface muscles is an integral part of this course.

FES 123 Step Aerobics I (3 Credits)

This course provides an introduction to a program of exercises designed to improve cardiovascular capacity. Heart rate monitoring and perceived exertion is learned. Elements of a safe and effective workout are stressed during low impact aerobics using step-benches. This course emphasizes cardiovascular endurance and tones the lower body. The function of the muscular, respiratory, and cardiovascular systems as they relate to exercise are covered.

FES 124 Cardio-Training I (3 Credits)

The emphasis of this course is cardiovascular exercise in a variety of formats. The semester is divided into a minimum of three four-week modules to insure participation in no less than three different aerobic exercise systems. Fitness Center aerobic machines, slides, step aerobics, walking/jogging, water aerobics and circuit training systems are utilized.

FES 140 Perspectives in Personal Health and Wellness (3 Credits)

A personal approach to health and wellness will be explored through self-assessment and practical application to everyday life. The course will focus on health and wellness concepts important in making informed choices about one's physical, mental, and emotional well-being.

FES 150 Emergency Personnel Fitness (3 Credits)

This course introduces the students to the physical, cognitive and emotional demands of academy training. The students will be prepared to pass the physical training requirements of various government, state, and city agencies. Lectures and video presentations will be provided to introduce the students to several health and fitness topics, including the principles of exercise, coronary heart disease risk factors, physical readiness, nutrition, and lifetime health for emergency personnel.

FES 180 Karate-Tae Kwon Do (3 Credits)

This course provides an overview of the history, philosophy, training and practice of the oriental martial art of Tae Kwon Do (Karate). Basic exercises, fundamentals of form, free fighting and self-defense are taught.

FES 186 Introduction to Golf (2 Credits)

An introduction to the fundamental skills and fundamental theories of golf is offered in this course. Basic golf skills are practiced in the gymnasium and during off-campus visits to local golf courses. There is a trip fee.

FES 188 Basic Fencing (3 Credits)

This course, which uses the French foil method, develops students' balance, strength and agility through instruction in parries, beats, and lunges. Bout procedures, techniques and strategies challenge the mind as well as the body. Equipment including vest, glove, mask and foil is provided.

FES 190 Weight Training Methods (3 Credits)

This course closely examines the fundamental principles and physiology of weight training as they apply to the general physical fitness goals of students. An individualized weight training program is developed as each student considers training level, technique and personal goals.

FES 191 Weightlifting/Free Weights (3 Credits)

This course explores the principles underlying strength training and its relationship to human movement. Each student designs an effective program to strengthen musculature while practicing proper free weight lifting techniques. Periodization theory is taught as a model for strength and power gains.

FES 202 Foundations of Physical Fitness (3 Credits)

The emphasis in this course is on the basic knowledge, understanding and value of physical activity that is especially pertinent today in view of the high incidence of hypo-kinetic disease in American society. Classes are organized in a lecture-lab sequence to aid students in developing a knowledge of how to exercise properly and the reasons for exercise. Each student's exercise and fitness requirements are reviewed and assessed.

FES 205 Prevention & Treatment of Athletic Injuries (3 Credits)

This course reviews the practice and theory of athletic training procedures utilized for the immediate and temporary care of trauma, concussions, sprains, abrasions, lacerations and other injuries.

FES 207 Introduction to Exercise Science (3 Credits)

This course provides an introduction to the field of exercise and sport science with particular focus on the key concepts of the sub-disciplines and the diverse range of professional careers associated with physical activity. Students will be exposed to the key issues and challenges of exercise science and sport including the structure of the industry, as well as career opportunities and pathways.

FES 219 Water Safety Instructor (3 Credits)

An analysis of water skills from the beginning through advanced swimming is the focus of this course. Methods of organization and teaching of skills are reviewed. Red Cross certification is awarded to those who qualify.

FES 240 Sports Officiating (3 Credits)

The course will provide the student with insight into the field of sports officiating from the viewpoint of the participants, the official, and the public/media. Various sports and officiating strategies will be presented throughout the semester. Students will gain an increased knowledge and appreciation of the different aspects of sports.

Pre-Requisite(s): FES 124 and FES 190

FES 241 Self: I as Body (3 Credits)

Course is divided into two broad components that bridge a creative and scientific approach to understanding self-identity and the human form. Students study anatomy, the human nude and engage in physical activity. This course connects knowledge, creativity and somatic experience to explore the human form and identity.

FES 303 Athletic Practicum (3 Credits)

This course is a laboratory experience in dealing with the practical work related to athletic training. Students participate in taping and wrapping techniques that will aid in the prevention and rehabilitation of athletic injuries.

Pre-Requisite(s): FES 205 Prevention and Treatment of Athletic Injuries

FES 306 Foundations of Sport and Leisure Studies (3 Credits)

This course analyzes the nature, scope and significance of sport and leisure in today's society. Students are given the opportunity to trace the history and the evolution of theories of sport and leisure as influencing factors facing the individual and society.

FES 310 Sport in American Society (3 Credits)

The study of sport in society as it affects humanities' development, form of expression, systems and the inter-relationships of sport with other elements of culture are the themes of this course.

FES 314 Life Span Motor Development (3 Credits)

This course examines how interactions of the developing and maturing individual, the environment, and the task being performed bring about changes in a person's movements. It also covers normal and abnormal developmental issues across the full life span, especially in the formative years. Clinical components are incorporated into the course.

Prerequisite(s): PSYC 110 and BIOL 236

FES 315 Structural Kinesiology (3 Credits)

Structural Kinesiology examines the fundamental anatomical analysis of human movement and sports skills. The emphasis of this course is the study of muscles, bones, and joints as they are involved in the science of movement. To a much lesser degree, certain physiological and mechanical principles are addressed.

Prerequisites: BIOL 236 Principles of Anatomy and Physiology I

Corequisite: BIOL 237 Principles of Anatomy and Physiology II

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FES 320 Sports Nutrition (3 Credits)

A broad overview of the physiological aspects of nutrition and exercise programs are provided in this course. Proper selection of food for different age groups and genders is discussed. Physiological aspects of exercise and its effect on the cardiovascular system, metabolism, obesity and weight control are reviewed. Selection of type, intensity and frequency of an exercise program for children, women, middle-aged and senior citizens is considered.

FES 325 Exercise Testing and Prescription (3 Credits)

Exercise Testing and Prescription provides instruction in performing appropriate and reliable fitness and functional assessment, followed by guidelines for designing customized exercise programs to improve the fitness level of the general and special population.

Pre-requisite(s): FES 315 and BIOL 237

FES 326 Adapted Physical Education (3 Credits)

Adapted Physical Education will provide students in the fields of exercise science with an overview of best practices to adapt physical activity and exercise for individuals with disabilities. More specifically, this course will focus on children and adults with disabilities and/or chronic conditions. Clinical aspects are incorporated into the course.

Pre-requisite: FES 314 Motor Development

FES 344 Psychosocial Aspects of Sport (3 Credits)

Explores the psychological determinants and consequences of physical activity, with an emphasis on psychological factors relevant to enhancing sport performance. Students will also analyze key theories in exercise psychology in order to understand exercise's influence on psychological health outcomes.

Pre-requisite: PSYC 110

FES 407 Responding to Emergencies (3 Credits)

Core knowledge and materials that introduce students to a basic understanding of the human body under normal and adverse conditions are reviewed in this course. The nature, cause and first aid care for emergency health procedures are reviewed. American Red Cross Standard First Aid Certification and C.P.R. Certification may be earned.

FES 409 Organization & Administration of Recreational Programs (3 Credits)

This course examines the techniques and practices pertaining to the organization and administration of sport and recreational services. It covers a variety of procedures such as activity formats, planning, program development and other managerial procedures.

FES 410 Motor Control and Learning (4 Credits)

This course examines the behavioral, physiological, and psychological principles underlying motor control and motor learning. Specific topics include classifications and measurement of motor performance; the role and function of sensory processes, perception, memory, attention; and the delivery of feedback and structure of practice. Clinical aspects are incorporated into the course.

FES 412 Methods and Materials of Teach (3 Credits)

This course is a study of various methods for organized instruction and planning in recreational sports using available equipment and facilities. Motivational, promotional awards and tournament systems are studied along with safety procedures.

FES 414 Contemporary Issues in Exercise Science (3 Credits)

Students examine contemporary research and new/contentious issues in exercise science. Students discuss relevant issues facing society regarding exercise, fitness, athletic performance, kinematic movement, motor development, and biomechanical analysis. The course challenges students to analyze and synthesize current topics and offer solutions to benefit exercise science research and related industries.

FES 415 Biomechanics of Sport and Exercise (3 Credits)

This course explains how human movement is achieved through a complex and highly coordinated mechanical interaction between bones, muscles, ligaments and joints within the musculoskeletal system. Students will explore how this system responds and generates its own internal forces and will apply biomechanical principles to analyze movement and improve performance.

FES 422 Exercise Physiology (3 Credits)

This course examines the structure and function of skeletal muscles, energy sources, oxygen requirements for muscular activity and fitness assessment, and exercise prescriptions. This is a required course for the students completing the Fitness Minor.

Pre-Requisite(s): BIOL 236, and BIOL 237

FES 450 Internship in Exercise Science (3 Credits)

The Exercise Science practicum/internship is designed to give the student experiential learning in the areas of athletic training, health/fitness/wellness, physical/ occupational therapy or physical education/ sport management. It is a culminating activity which links classroom instruction to a career.

Prerequisites: FES 205, FES 325, and FES 407