DEPARTMENT OF KINESIOLOGY

College of Health Sciences
206 Sturzebecker Health Sciences Center
610-436-2260 or 610-436-2610
Department of Kinesiology (http://www.wcupa.edu/kinesiology/)
W. Craig Stevens (wstevens@wcupa.edu), Chairperson
Melissa Whidden (mwhidden@wcupa.edu), Assistant Chairperson - Exercise Science Division
Rick Howard (rhoward@wcupa.edu), Director - Minor in Coaching

Programs of Study
The Department of Kinesiology offers one program leading to the bachelor of science degree:

- **B.S. in Exercise Science.** The purpose of the exercise science (ES) program is to prepare students for positions in the growing and multifaceted field of health, exercise, and fitness or to gain admission into various professional and graduate schools. In addition, students will be prepared for success in appropriate certification examinations. The primary focus of the ES program is for each student to develop abilities and master knowledge and skills necessary to provide leadership in the health and fitness fields, as well as be a successful member of society. Concentrations offered within the curriculum include Exercise Science Specialist, Pre-Physical Therapy, Pre-Occupational Therapy, and Pre-Chiropractic Therapy. The Bachelor of Science is nationally accredited by the Committee on Accreditation for the Exercise Sciences (CoAES) under the auspices of the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Facilities
The department is housed on West Chester University's South Campus in the Russell L. Sturzebecker Health Sciences Center. The SHSC features the following indoor facilities: five full-size, multipurpose gymnasiums; one fully equipped gymnastics gym; strength and conditioning training facility; human performance laboratory; 17 classrooms; and an aquatics center featuring two pools. Outdoor facilities include multipurpose playing fields, tennis courts, softball fields/baseball fields, quarter-mile track, three outdoor adventure education facilities, and a climbing wall.

Programs
Majors

- **B.S. in Exercise Science - Exercise Science Specialist Concentration** (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/exercise-science-bs-exercise-science-specialist-concentration/)
- **Accelerated B.S. in Exercise Science - Exercise Science Specialist Concentration to M.S. in Exercise and Sport Science** (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/exercise-science-bs-exercise-science-specialist-concentration/)
- **B.S. in Exercise Science - Pre-Chiropractic Concentration** (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/exercise-science-bs-pre-chiropractic-concentration/)
- **B.S. in Exercise Science - Pre-Occupational Therapy Concentration** (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/exercise-science-bs-pre-occupational-therapy-concentration/)
- **B.S. in Exercise Science - Pre-Physical Therapy Concentration** (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/exercise-science-bs-pre-physical-therapy-concentration/)

Minors

- Coaching (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/coaching-minor/)
- Exercise Science (http://catalog.wcupa.edu/undergraduate/health-sciences/kinesiology/exercise-science-minor/)

Graduate Opportunities
See the graduate catalog for more information on the Kinesiology programs. (http://catalog.wcupa.edu/graduate/health-sciences/kinesiology/)

Policies

- See undergraduate admissions information. (http://catalog.wcupa.edu/general-information/admissions-enrollment/undergraduate-admissions/)
- See academic policies. (http://catalog.wcupa.edu/undergraduate/academic-policies-procedures/)

All undergraduate students are held to the academic policies and procedures outlined in the undergraduate catalog. Students are encouraged to review departmental handbooks for program tips, suggested course sequences, and explanations of procedures. When applicable, additional policies for specific department programs may be listed below.

Minimum Grade Requirements for the B.S. in Exercise Science Concentrations

**Pre-Physical Therapy Concentration**
All related requirement courses and core Exercise Science classes MUST be passed with a C- or better.

**Pre-Occupational Therapy Concentration**
All related requirement courses and core Exercise Science classes MUST be passed with a C- or better.

**Pre-Chiropractic Concentration**
All related requirement courses and core Exercise Science classes MUST be passed with a C- or better.

Accelerated Program Policy
Refer to the Accelerated Programs page (http://catalog.wcupa.edu/undergraduate/accelerated-programs/) for more information.

Faculty

**Professors**

Margaret Ottley (mottley@wcupa.edu) (2001)
B.A., Spelman College; M.Ed., Ph.D., New York University

Melissa A. Reed (mreed3@wcupa.edu) (2011)
B.S., East Stroudsburg University; M.A., Ph.D., East Carolina University

David J. Stearne (dstearne@wcupa.edu) (2005)
Graduate Coordinator, Kinesiology
B.A., Rowan University; M.S., University of Florida; Ph.D., Temple University

W. Craig Stevens (wstevens@wcupa.edu) (1992)
Chairperson, Kinesiology
B.A., Johns Hopkins University; M.S., Springfield College; Ph.D., Temple University

Karin A.e. Volkwein (kvolkwein@wcupa.edu) (1992)
Staatsexamen, University of Marburg (Germany); Ph.D., University of Tennessee

Melissa A. Whidden (mwhidden@wcupa.edu) (2011)
Assistant Chairperson, Kinesiology
Courses

EXL

EXL 362. Biomechanics Laboratory. 1 Credit.
This laboratory course will enable the student to learn from both "hands-on" and computer simulated experiences. In both cases, reinforcing and illuminating concepts and biomechanical principles introduced in EXS 362 (lecture class).
Pre / Co requisites: EXL 362 requires prerequisites of PHY 100 OR PHY 130 and EXS 223; and a corequisite of EXS 362.
Typically offered in Fall & Spring.

EXL 380. Exercise Physiology Lab. 1 Credit.
This one credit laboratory course will enable the student to learn from both "hands-on" and computer simulated experiences. In both cases, reinforcing and illuminating concepts and physiological principles introduced in the EXS 380 lecture-class.
Pre / Co requisites: EXL 380 requires prerequisites of BIO 269 and EXS 180 and a corequisite of EXS 380.
Typically offered in Fall, Spring, Summer, Winter.

EXL 381. Fitness Assessment - Exercise Prescription Lab. 1 Credit.
Designed to prepare students to assess the physical fitness levels of healthy adults. Hands on experiences in measuring critical physiological variables as well as the following physical fitness components: cardiovascular endurance, muscular strength, muscular endurance, flexibility, balance and body composition. Students will have practice in interviewing clients and working with subjects performing physical activity.
Pre / Co requisites: EXL 381 requires prerequisites of EXS 362, EXL 362, and current CPR certification; and a co-requisite of EXS 381.
Typically offered in Fall, Spring & Summer.

EXL 482. Strength Training and Conditioning Laboratory. 1 Credit.
This laboratory course will apply and reinforce strength and conditioning principles and concepts from EXS 482 and enable students to learn from hands-on experience. This course, along with EXS 482, will serve as a partial preparation for the CSCS exam.
Pre / Co requisites: EXL 482 requires prerequisites of EXS 362, EXL 362, EXS 380, and EXL 380. EXL 482 requires a corequisite of EXS 482.
Typically offered in Fall, Spring, Summer, Winter.

EXL 489. Clinical Exercise Testing and Interpretation Laboratory. 1 Credit.
This laboratory course will enable the student to learn from both "hands-on" and computer simulated experiences. In both cases, reinforcing and illuminating concepts and clinical exercise principles introduced in EXS 489 (lecture class). Students will learn how to administer graded exercise tests, take blood pressure and heart rate measurements during exercise, administer and interpret standard resting and exercise 12-lead electrocardiograms at a fundamental level, and how to properly prescribe exercise based on test results and using metabolic calculations.
Pre / Co requisites: EXL 489 requires prerequisites of EXS 381 and EXL 381 and a corequisite of EXS 489.
Typically offered in Fall, Spring & Summer.

EXS

EXS 101. Group Exercise Leadership. 2 Credits.
The major goals of this course are to provide students with professional instruction on how to teach a variety of group exercise classes by applied learning techniques, to be able to lead exercise classes for all levels of fitness and for a wide variety of participants, including children, the elderly, and other special populations, and to modify moves to accommodate them. This course is designed to prepare the student to pass a nationally accredited certification exam for group exercise leadership.
Typically offered in Fall & Spring.

EXS 102. Fundamentals of Resistance Training Techniques. 2 Credits.
Resistance training, also called weight training or strength training, is structured exercise in which muscles of the body are forced to contract under tension using weights, body weight, or other devices in order to stimulate growth, strength, power and endurance. This course provides the beginner student with hands-on experience using these various methods along with instruction on proper exercise technique and safety precautions.
Typically offered in Fall & Spring.

EXS 103. Fundamentals of Group Exercise and Resistance Training. 3 Credits.
This course is designed to prepare the student to pass a nationally accredited certification exam for group exercise leadership.
Typically offered in Fall & Spring.

EXS 180. Lifetime Fitness Concepts. 3 Credits.
Designed to provide an interdisciplinary understanding of the relationship between lifestyle, physical fitness, and health and well-being.
Typically offered in Fall & Spring.

EXS 199. Transfer Credits. 1-10 Credits.
Transfer Credits. Repeatable for Credit.

EXS 222. Introduction to Medical Terminology and Drug Classifications. 2 Credits.
This course offers an introduction to common clinical abbreviations and medical terms through an analysis of their construction including prefix, suffix, root, connecting and combining forms. The student acquires an understanding of medical meanings applicable to structure, function and diseases of the human body. Students will also learn how drugs are classified and for what major conditions they are used and learn how to use the Physician's Desk Reference. Distance education offering may be available. Typically offered in Fall, Spring, Summer, Winter.

EXS 223. Kinetic Anatomy. 2 Credits.
The purpose of this course is to lay the foundation for students to learn how anatomy affects movement of the human body. The course will build upon, reinforce, and challenge the student's basic knowledge of structural anatomy with the intention of acquiring a mastery of basic concepts in this discipline. Presentation of concepts will begin with whole body orientation by region, and then work additively and systematically from skeletal anatomy identifications and joint structure / alignment analysis, through muscular and neurovascular investigation to provide a comprehensive study of clinically applied structural anatomy.
Pre / Co requisites: EXS 223 requires a prerequisite of BIO 259.
Typically offered in Fall & Spring.
This class introduces basic anatomical and physiological concepts critical to understanding human movement, exercise, physical education and how the human body functions. The class examines the anatomy, physiology and exercise physiology of the skeletal and muscular systems. Throughout the course, special attention will be paid to the impact of development (growth and maturation) on the systems covered. Students will be required to apply these anatomical and physiological principles to physical education, exercise and sport.
Typically offered in Fall.

EXS 270. Motor Learning. 3 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, and attention; and the delivery of feedback and structure of practice.
Distance education offering may be available.
Typically offered in Fall & Spring.

EXS 280. The Exercise Science Profession. 1 Credit.
This course introduces students to the background of the exercise science profession, the meaning of professionalism, the Code of Ethics for the profession, certification options available within the field, relevant professional organizations, the relationship of the exercise scientist to the healthcare network, the scope of exercise science practice and various career options. In addition, students will learn about the academic requirements and curricular issues related to the Bachelor of Science in Exercise Science. Also students will understand how to build an impressive portfolio to support subsequent opportunities. Lastly, alternative career options and graduate education will be explored.
Typically offered in Fall & Spring.

EXS 361. Body Systems and Applied Anatomy II. 3 Credits.
This class introduces basic anatomical and physiological concepts critical to understanding human movement, exercise, physical education and how the human body functions. The class examines the anatomy, physiology and exercise physiology of the following systems: nervous, endocrine, cardiovascular, respiratory, digestive, and renal systems. Metabolism and the generation of energy will also be discussed. Throughout the course, special attention will be paid to the impact of development (growth and maturation) on the systems covered. Students will be required to apply these anatomical and physiological principles to physical education, exercise and sport.
Typically offered in Spring.

EXS 362. Biomechanics. 3 Credits.
This course is intended to provide the student with a fundamental understanding of selected mechanical and anatomical laws of motion, actions caused by forces and their application to the study of mechanical structure and analysis of motion. Students will be able to use and apply these principles to various forms of movement.
Pre / Co requisites: EXS 362 requires prerequisites of PHY 100 OR PHY 130 and EXS 223; and a corequisite of EXL 362.
Typically offered in Fall & Spring.

EXS 364. Introduction to Exercise Physiology. 3 Credits.
Builds on the physiological concepts introduced in EXS 241. Students will be required to apply these physiological principles to physical education, exercise and sport.
Pre / Co requisites: EXS 364 requires a prerequisite of EXS 241.
Typically offered in Fall & Spring.

EXS 375. Sport and Exercise Psychology. 3 Credits.
This course is designed for students interested in the psychosocial issues related to sport and exercise behavior. This course will introduce students with theories and practices inherent in the field of sport and exercise psychology. Additional emphasis will include intervention strategies to promote exercise behaviors and long-term adherence to a physically active lifestyle.
Pre / Co requisites: EXS 375 requires prerequisites of PSY 100 and EXS 270.
Distance education offering may be available.
Typically offered in Fall, Spring & Summer.

EXS 380. Exercise Physiology. 3 Credits.
This course investigates the physiological principles which explain how the human body responds and adapts to physical activity, exercise, and work.
Pre / Co requisites: EXS 380 requires prerequisites of BIO 269 and EXS 180 and a corequisite of EXL 380.
Typically offered in Fall, Spring, Summer, Winter.

EXS 381. Fitness Assessment - Exercise Prescription. 3 Credits.
Designed to prepare students to assess the physical fitness levels of healthy but sedentary adults and prescribe individualized exercise programs.
Pre / Co requisites: EXS 381 requires prerequisites of EXS 380, EXL 380, and current CPR certification; and a co-requisite of EXL 381.
Typically offered in Fall, Spring, Summer, Winter.

EXS 481. Fitness Recovery. 3 Credits.
This course is designed for students interested in exercise-based interventions in mental health disorders. This course will introduce students to the use of dosed-exercise as part of clinical treatment. Detailed and practical strategies for developing, implementing, and evaluating physical activity-based interventions for people with mental health disorders will be discussed. Exercise strategies that are specifically tailored for common mental health disorders, such as addictions, depression, schizophrenia, bipolar disorder, and more will be covered.
Pre / Co requisites: EXS 481 requires prerequisites of PSY 100 and EXS 380.
Distance education offering may be available.
Typically offered in Fall, Spring, Summer, Winter.

EXS 482. Strength Training and Conditioning. 3 Credits.
This course provides an overview of the theory, methods and techniques associated with the strength and conditioning of the cardiovascular and musculoskeletal systems. An emphasis will be placed on the acute and chronic adaptations to strength and conditioning programs, including novel methods such as plyometrics, speed/agility/speed-endurance training, and core training. Application of theory will be implemented through practical lab experiences.
Pre / Co requisites: EXS 482 requires prerequisites of EXS 362, EXL 362, EXS 380, and EXL 380. It also requires a corequisite of EXL 482.
Typically offered in Fall, Spring, Summer, Winter.

EXS 483. Advanced Principles of Strength and Conditioning. 3 Credits.
This course combines practical knowledge and hands-on experiential learning in strength and conditioning that is used in a variety of athletic settings, such as: professional sports teams, intercollegiate athletics, high school strength and conditioning, youth, etc.
Pre / Co requisites: EXS 483 requires prerequisites of EXS 482 and EXL 482 or permission from the instructor.
Distance education offering may be available.
Typically offered in Spring.

EXS 484. Organization and Management of Adult Fitness Programs Clinic/Seminar. 3 Credits.
This course provides students with practical knowledge in organizing, managing and implementing adult fitness. Students will get hands on experience in the following areas: personal training, program design, leading group exercise classes, retention, liability protection, facility safety, facility design, budgeting, and promotion and marketing. Special emphasis is placed on standards and guidelines set forth by the American College of Sports Medicine (ACSM), and the National Strength and Conditioning Association (NSCA).
Pre / Co requisites: EXS 484 requires prerequisites of EXS 381 and EXL 381.
Typically offered in Fall, Spring & Summer.

EXS 486. Exercise Prescription - Special Population. 3 Credits.
Designed to provide students with practical experience in organizing and managing physical fitness programs for adults.
Pre / Co requisites: EXS 486 requires a prerequisite of EXS 381.
Distance education offering may be available.
Typically offered in Fall, Spring, Summer, Winter.

EXS 487. Physical Activity and the Environment. 3 Credits.
A survey course investigating the multidisciplinary nature of environmental physiology. It will explore the impact of different environments on the physiology of humans while at work and play. This course will examine the thermal environments (hot, cold, humidity), barophysics (altitude and depth), microgravity and space, air pollution, and chronobiological rhythms. Laboratory experiences, both computer simulation and "hands-on," will be included in the course.
Pre / Co requisites: EXS 487 requires prerequisite of EXS 380 or BIO 468 or BIO 469.
KIN 101. Intro to Adventure Based Educ. 3 Credits.  
A course designed for the student to understand the adventure approach to experiential education in various environments. The students will have the opportunity to experience an adventure curriculum including initiatives, problem-solving activities, and low and high ropes course elements.
Typically offered in Fall & Spring.

KIN 103. Introduction to Teaching Physical Education. 3 Credits.  
Students will gain an introduction to the field and basic foundational knowledge that will be used in succeeding coursework. The majority of the course will focus on best practices in physical education instruction and quality physical education programs. Students will have multiple opportunities to develop lesson plans and teach those plans at a local elementary school. Topics also include advising, clearances, ethics, health education, sub-disciplines of kinesiology and the history of physical education. Clearances must be presented during the first week of classes to remain enrolled, see the College of Education.
Typically offered in Fall.

KIN 199. Transfer Credits. 0.5-18 Credits.  
Transfer Credits.  
Repeatable for Credit.

KIN 246. Sport, Wellness, and Society. 3 Credits.  
Current theories and research in the area of sport, wellness, and society will be introduced. The focus of the course is interdisciplinary, incorporating sociological, psychological, historical, anthropological, philosophical, and economic perspectives. Topics include diversity and inclusion issues in sport, wellness, and the society at large, locally and globally.  
Gen Ed Attribute: Diversity Requirement, Interdisciplinary Requirement.  
Distance education offering may be available.  
Typically offered in Fall & Spring.

KIN 275. Lifeguarding. 2 Credits.  
Theory and techniques relative to preventive lifeguarding, emergencies in and around water, water rescues, search and recovery operations, types and uses of equipment, records and reports, health and sanitation, and supervision of waterfront areas. Possibility of American Red Cross certification.

KIN 448. Research Lab Techniques In Prevent Medicine. 3 Credits.  
Research laboratory techniques in preventive medicine.  
Pre / Co requisites: KIN 448 requires a prerequisite of BIO 259.  
Typically offered in Fall & Spring.

KIN 498. Physical Education Workshop. 1-3 Credits.  
Contact department for more information about this course.  
Repeatable for Credit.

PEA 100. Basic Swimming (Non Swimmers). 2 Credits.  
Contact department for more information about this course.  
Typically offered in Fall & Spring.

PEA 116. Personal Defense. 2 Credits.  
Contact department for more information about this course.  
Typically offered in Fall & Spring.

PEA 120. Badminton. 2 Credits.  
Contact department for more information about this course.  
Typically offered in Fall & Spring.

PEA 123. Golf. 2 Credits.  
Contact department for more information about this course.  
Typically offered in Fall & Spring.

PEA 128. Tennis. 2 Credits.  
Contact department for more information about this course.  
Typically offered in Fall & Spring.

PEA 137. Strength Training. 2 Credits.  
Contact department for more information about this course.  
Typically offered in Fall & Spring.
PEA 140. Aerobic Fitness. 2 Credits.
Contact department for more information about this course.
Typically offered in Fall & Spring.

PEA 141. Water Fitness. 2 Credits.
Contact department for more information about this course.

PEA 142. Yoga. 3 Credits.
The purpose of this course is to provide each student with the skills and experiences to develop self-awareness and an appreciation for healthy living through the understanding and practice of yoga.
Distance education offering may be available.
Typically offered in Fall, Spring, Summer, Winter.

PEA 143. Yoga II. 3 Credits.
The purpose of this course is to provide each student with the opportunity to develop his or her yoga practice in order to realize the potential for self awareness and appreciation for healthy living that can be achieved through the continued practice of yoga.
Pre / Co requisites: PEA 143 requires prerequisite of PEA 142.
Typically offered in Fall & Spring.

PEA 144. T'ai Chi Ch'uan. 3 Credits.
This course will be the study of a martial art that combines movement with chi. T'ai Chi Ch'uan uses the principals of Yin-Yang and the Five Element theories and is compatible with Chinese medicine, acupuncture, and Chinese herb treatment. The name refers to the Chinese concept of the Grand Ultimate, or of Yin and Yang. T'ai Chi Ch'uan is performed slowly and with smooth continuous motion, unlike most other martial arts that are performed with speed and power. T'ai Chi Ch'uan builds power internally and does not rely on body strength alone and can be practiced from childhood into old age with no risk to the practitioner. The study of movement, skeletal structure and T'ai Chi as a Meditative Art will be included in the courses.
Typically offered in Fall & Spring.

PEA 146. Pilates. 3 Credits.
This course is designed to provide each student with the skill and knowledge to perform the 6 basic principles that are the core of the Pilates method - Centering, Concentration, Control, Precision, Breathing, and Flowing Movement. Exercises and activities are developed to assist students in strengthening musculature, in spinal alignment and in gaining effective breathing.
Typically offered in Fall & Spring.

PEA 242. Yoga III. 3 Credits.
This course is the third in the Yoga sequence and will provide further development of Yoga skills for the participant. Individual interested in teaching Yoga will explore teaching methodology and will address the individual requirements established by the Yoga Alliance.
Pre / Co requisites: PEA 242 PREREQ: PEA 142 and PEA 143 or permission of instructor.
Typically offered in Spring.

PEA 244. T'ai Chi Ch'uan II. 3 Credits.
The goal of this course is to provide students with an advanced knowledge and skill sets required to practice the art of T'ai Chi Ch'uan and Push Hands. Longevity and rejuvenation are the primary goals of T'ai Chi, a system of slow, gentle, non-strenuous movements ideal for persons of any age who want to stay flexible, increase their energy and reduce stress. T'ai Chi promotes health, balance, coordination and tranquility. It leads to more graceful effortless movement in everyday life. This is an ideal opportunity to try out this wonderful, low stress form of exercise.
Typically offered in Spring.