Exercise Science

According to multiple leading entities, including the American College of Sports Medicine, the National Institutes of Health, the United States Surgeon General, and the American Heart Association, the promotion of physical activity is a leading concern on our national public health agenda. Physical activity performed on a regular basis reduces the risk of morbidity and mortality, and enhances overall quality of life. The role of the exercise science professional is to design and implement safe and effective programs for individuals of all ages, abilities, and health and fitness levels.

Employment Opportunities
Exercise science graduates are employed in commercial, corporate, clinical, athletic, and private health and fitness facilities.

Specific employment activities include, but are not limited to:

- Managing community and commercial fitness and wellness programs at local YMCAs, health clubs, and community centers.
- Supervising clinical exercise programs (cardiac rehabilitation, pulmonary rehabilitation, weight loss, etc.)
- Directing athletic conditioning and performance programs at universities, colleges, high schools, commercial fitness centers, and professional sports franchises
- Managing corporate fitness and wellness programs
- Implementing exercise programs for individuals with special needs (children, senior adults, pregnant women, individuals with chronic disease and disabilities, etc.)
- Representing fitness equipment manufacturers in developing and marketing products
- Serving as personal trainers

Degree Options
The exercise science program at YSU is offered through the Department of Human Performance and Exercise Science. Students majoring in exercise science earn the Bachelor of Science in Applied Science (BSAS) degree and are prepared for certification through the American College of Sports Medicine (ACSM) as Certified Personal Trainers (CPT), Health/Fitness Instructors (HFI), and through the National Strength and Conditioning Association (NSCA) as Certified Strength and Conditioning Specialists (CSCS) and Certified Personal Trainers (CPT).

Upon successful completion of coursework, students perform a full-time 400 – 600 hour internship at an approved facility, compatible with career and employment goals.

Upon receipt of the baccalaureate degree, graduates are prepared for employment in the aforementioned areas, or for advanced studies in various branches of exercise science or related fields, such as medicine, physical therapy, and athletic training.

Facilities
The Beeghly Physical Education Center is home to the exercise science program and houses classrooms, laboratories, a gymnasium with spectator seating for 7,500, a 50-meter swimming pool, a fitness center, and a rifle range. The program maintains laboratories for exercise science and kinesiology.

The laboratory contains the newest technology, with an AEI Metabolic analysis unit, a Mortara Stress electrocardiogram system, interfaced with a research- quality treadmill, a portable metabolic unit, a Lode electronically-braked cycle ergometer, a BIO PAC data acquisition system, electromyography equipment, five Monark cycle ergometers, a spirometer, hydrostatic weighing apparatus, a bioelectrical impedance analysis system, and skinfold calipers.

Adjacent to Beeghly Center is the Arnold D. Stambaugh Stadium and All-Sports Complex, which includes a 16,000-seat outdoor stadium, indoor classrooms, racquetball courts, a weight room, gymasia, and sports medicine facilities. Located outside the stadium are tennis courts, track and field facilities, and multipurpose areas for football, soccer, softball, and field hockey.

For more information about this program, go to www.ysu.edu, click on Colleges, then Bitonte College of Health & Human Services
Faculty
YSU maintains a faculty-student ratio of approximately 1:20, among the best of the state-affiliated universities in Ohio.

In the Exercise Science program's hands-on practicum courses, class sizes are limited to 15 students to ensure special attention.

Full-time faculty in the Department of Human Performance and Exercise Science are teaching professionals, with wide ranges of experience to support a variety of student interests. The faculty members specialize in such diverse areas as exercise physiology, biomechanics, kinesiology, elementary and secondary teacher preparation, cultural aspects of sports, and program administration.

With ongoing research studies in many of these areas, undergraduate students are encouraged to become part of a research team. All full-time faculty members serve as academic advisors and are involved in every phase of instruction in the undergraduate programs.

Accreditation
Youngstown State University is accredited by the Higher Learning Commission and a member of the North Central Association.

Professional and Honorary Societies
Exercise Science students are encouraged to acquire membership and participate in YSU's chapter of Phi Epsilon Kappa (PEK), a national professional fraternity for students pursuing careers in health, physical education, or recreation. PEK encourages participation in scholarly activities, community service, and peer support.

Outstanding exercise science students may also be elected to campus chapters of Eta Sigma Gamma (national health education honorary society) and Phi Kappa Phi (honorary society for all disciplines).

Curriculum Overview
- Aerobic Conditioning Activities
- Resistance Training
- Introduction and Concepts of Physical Education and Exercise Science
- Sports First Aid and Injury Prevention
- Pedagogical Aspects of Exercise Science
- Exercise Testing and Prescription I
- Physiology of Exercise/Lab
- Kinesiology and Applied Anatomy/Lab
- Exercise Testing and Prescription II
- Exercise Program Administration
- Strength Training and Conditioning
- Exercise Testing and Prescription III
- Research Design and Statistics in Exercise Science
- Internship