



**KENTUCKY STATE
UNIVERSITY**

EXERCISE SCIENCE

Patrese A. Nesbitt, DrPH, MS, CPT, CSCS

Exum 267

Phone: 502-597-6133

Email: patrese.nesbitt@kysu.edu

A Bachelor of Science degree in Exercise Science offers students a comprehensive understanding of human movement, exercise physiology, and health promotion. This degree program typically includes coursework in anatomy, physiology, kinesiology, biomechanics, nutrition, and exercise prescription. Students may have the opportunity to specialize in one of three tracks: Sports Management, Allied Health and Fitness, and Teaching.

Program Learning Outcomes

For a Bachelor of Science (B.S.) in Exercise Science program, the following are common program learning objectives that students are expected to achieve by the end of their studies:

I. Understanding of Human Anatomy and Physiology:

- Demonstrate knowledge of human anatomy and physiology, including the musculoskeletal, cardiovascular, respiratory, and nervous systems.
- Describe the physiological responses and adaptations to exercise and physical activity.

II. Proficiency in Exercise Assessment and Prescription:

- Apply principles of exercise testing and assessment to evaluate individuals' fitness levels, functional capacity, and health status.
- Design safe and effective exercise prescriptions tailored to individuals' goals, needs, and health considerations.

III. Knowledge of Exercise Science Principles and Theories:

- Explain fundamental principles and theories of exercise science, including biomechanics, kinesiology, exercise physiology, and motor learning.
- Apply scientific evidence and critical thinking skills to analyze and interpret research findings in exercise science.

IV. Competence in Exercise Programming and Training:

- Design and implement exercise programs for diverse populations, taking into account factors such as age, fitness level, health status, and special needs.
- Demonstrate proficiency in various modes of exercise, including aerobic, resistance, flexibility, and neuromotor training techniques.

V. Understanding of Health and Fitness Promotion:

- Describe the role of physical activity and exercise in promoting health, preventing chronic diseases, and enhancing overall well-being.
- Identify strategies for promoting adherence to exercise programs and facilitating behavior change in individuals and communities.

VI. Proficiency in Health Assessment and Risk Stratification:

- Conduct health screenings and assessments to identify risk factors, contraindications, and special considerations for exercise participation.
- Implement risk stratification procedures to ensure the safety and appropriateness of exercise prescriptions for individuals with various health conditions.

VII. Skills in Communication and Professionalism:

- Demonstrate effective communication skills in conveying health information, providing exercise instruction, and collaborating with clients, colleagues, and interdisciplinary teams.
- Exhibit professionalism, ethical conduct, and cultural competence in interactions with clients, peers, and stakeholders in the field of exercise science.

VIII. Practical Experience and Professional Development:

- Gain hands-on experience through internships, practicums, or fieldwork in exercise science-related settings, such as fitness centers, sports clinics, corporate wellness programs, or research laboratories.
- Engage in ongoing professional development activities, such as continuing education, certifications, conferences, and networking opportunities, to stay current with advancements in the field.

These learning objectives are designed to prepare students for careers in exercise science, fitness, wellness, healthcare, sports performance, research, and education, equipping them with the knowledge, skills, and competencies needed to promote physical activity, health, and quality of life across diverse populations and settings.

Page References and Job Resources

Master's in Athletic Training information (MSAT): Commission on Accreditation of Athletic Training Education (<https://caate.net/Search-for-Accredited-Programs/>)

Doctorate in Physical Therapy: American Physical Therapy Association (<https://www.apta.org/your-career/careers-in-physical-therapy/pt-admissions-process/>)

Physical Education: KY SHAPE (<https://kyshape.org/>)

Physical Education Standards (<https://www.shapeamerica.org/MemberPortal/standards/pe/default.aspx>)

Strength and Conditioning Certification: National Strength and Conditioning Association (<https://www.nscs.com/certification/cscs/>)

Sport Management Job Searches: Team Work Online (LINK) (<https://www.teamworkonline.com/>)

Jobs in Sports (<https://www.jobsinsports.com/>)

Bluefish (jobs in Sports and Recreation) (<https://careercenter.bluefishjobs.com/>)