

PATHWAY | EXERCISE SCIENCE



PATHWAY DESCRIPTION

YEAR 1

Principles of Exercise Science introduces students to the scientific foundations of exercise and human movement, with emphasis on both theory and career exploration.

- Core concepts in exercise physiology, biomechanics, sports medicine, and motor integration
- Application of human movement science to health, fitness, and performance
- Career pathways in sport, health and wellness, education, and medical fields (e.g., personal training, athletic training, physical therapy)

YEAR
1

7320 Principles of Exercise Science

- IDOE Course 7320, 2 Semesters
- Trine University

YEAR 2

Kinesiology students examine the biological and mechanical principles of human movement, with a strong emphasis on practical fitness applications and safe training practices.

- Study musculoskeletal and neuromuscular structure and function
- Apply fitness training methods to develop targeted conditioning outcomes
- Engage in lab-based learning focused on anatomy, physiology, fitness programming, and injury prevention
- Students will learn how to effectively instruct and develop sport-specific skills.

YEAR
2

7321 Kinesiology

- IDOE Course 7321, 2 Semesters
- Trine University

YEAR 3

Human Performance introduces students to how the body functions and adapts during physical activity, with a focus on exercise science and performance optimization.

- Study human physiology, including energy systems and cellular metabolic processes
- Examine how exercise affects major body systems (muscular, skeletal, cardiovascular, respiratory, nervous, and endocrine)
- Apply basic nutrition principles to support athletic and overall human performance

YEAR
3

7322 Human Performance

- IDOE Course 7322, 2 Semesters
- Trine University

Students MUST complete all pathway classes with a 73% or better



CAREER OPTIONS

- Personal Trainer
- Physical Therapist
- Athletic Trainer
- Strength & Conditioning Coach
- Exercise Physiologist
- Rehabilitation Specialist
- Sports Coach
- Health & Wellness Coach
- Ergonomics Consultant
- Corporate Wellness Coordinator
- Fitness Director
- Occupational Therapist
- & more!