



# **HUMAN PERFORMANCE LAB**

### **DESCRIPTION**

The HPL supports research and private industry projects assessing human exercise performance and fundamental human physiology in sport, exercise, and health. The Wichita community can also receive comprehensive health screenings, and create customized excercise programs to help clients reach their health and fitness goals.

Body Composition by DEXA	\$100
Endurance Testing (VO2max & lactates)	\$100
Cyclist Package (VO2, lactate, time trial)	\$150
Balance evaluation	\$35
Health / Performance consultations	Contact u

#### **CAPABILITIES**

Research and clinical grade fitness and physiological assessments and sport specific evaluations.

- · Teaching spaces
- Physiology of exercise laboratory
- · Fitness and body composition laboratory
- Neuromotor laboratory
- · Equipment room
- Student data analysis workstations
- · Changing room with lockers.

**The Physiology of Exercise Laboratory** measures cardiovascular health, pulmonary function, human bioenergetics, resting metabolic rate, aerobic and anaerobic power.

**The Fitness and Body Composition Laboratory** promotes a healthy and active lifespan.

#### **EQUIPMENT**

## The Physiology of Exercise Laboratory

- Medgraphics CPX
- Ultima Gas Exchange System
- AEI MAX II Metabolic Gas Exchange System
- Medgraphics VO2000 portable metabolic system
- Trackmaster treadmill
- Thorotread treadmill
- · Zephyr Bioharness Biofeedback System
- Quinton ECG System
- Midmark IQmark Digital ECG
- Midmark IQmark Digital Spirometer
- · Velotron Cycle Ergometer
- Two Lode Stress Testing Cycle Ergometers
- Monark Peak Bike
- Phillips AED, pulse oximetry
- CardioChek Blood Test System

## The Fitness and Body Composition Laboratory

- Dual Energy X-ray Absorbitrometry (DEXA)
- Skinfold calipers
- · Bioimpedance scales
- Anthropometry kit
- Biodex System 4 isokinetic dynamometer
- Monark cycle leg & arm ergometers
- Polar Team System for 20 users
- · Polar heart rate monitors
- Two Lactate Pro blood lactate analyzers
- · Vertec vertical leap equipment
- RevMaster spin bike with PowerCranks

#### The Neuromotor Laboratory

- BEP Family of Measurement Modules including Central Processing and Upper Extremity Motor Control Unit, Lower Extremity Motor Control Unit, Isometric Strength Unit, Postural Stability and Control Unit, Passive and Active Steadiness Unit, Hand Performance Sensors, and a Reaction Time Unit
- Biodex Balance System SD
- · Neurocom Basic Balance Master platform
- Jamar handgrip dynamometers
- Nicholas isometric dynamometer
- Devices for assessment of activities of daily living and functional fitness.

# **CONTACT**

**Dr. Jeremy Patterson** 

jeremy.patterson@wichita.edu (316) 978-5440



