

**College of Health and Human Development  
Faculty Research Themes**

**Injury Mechanisms, Prevention and Rehabilitation**

***William Buckley***

Research Interests

**Professor  
Kinesiology**

Email Address: **web5@psu.edu**

Health aspects of sport and athletic training with a focus in sport injury risk assessment and epidemiology; development of sport injury risk assessment models to apply to various subset athletic populations (women, disabled, senior participants), drug use in athletics, quality assessment for athletic training, and curriculum design.

***Philip Martin***

Research Interests

**Professor and Department Head  
Kinesiology**

Email Address: **PMARTIN@PSU.EDU**

Biomechanics and energetics of locomotion; factors affecting preferred rates of movement in cyclic activities, with particular emphasis on the biomechanics and economy of walking, running, and cycling; kinematic and kinetic determinants of walking and running patterns in below knee amputees.

***Nicole McBrier***

Research Interests

**Assistant Professor  
Kinesiology**

Email Address: **nmm13@psu.edu**

Skeletal muscle regeneration following injury and the influence of therapeutic modalities and rehabilitation on the regenerative processes. Currently, Dr. McBrier is investigating the influence of therapeutic ultrasound on skeletal muscle regeneration following contusion injury.

***Stephen Piazza***

Research Interests

**Associate Professor  
Kinesiology**

Email Address: **STEVE-PIAZZA@PSU.EDU**

Kinematic and dynamic computer simulation applied to the study of normal and pathological human gait; effects of design and surgical variation on the mechanics of total knee replacements; modeling of articular contact.

***Neil Sharkey***

Research Interests

**Professor  
Kinesiology**

Email Address: **NAS9@PSU.EDU**

Functional aspects of the musculoskeletal system viewed from an orthopaedic perspective; normal, pathologic, and reconstructed function of bones and joints; mechanisms of injury to bone, ligament, and tendon and associated healing responses; laboratory modeling of skeletal and diarthroidal joint loading; internal biomechanical behavior of the foot and ankle, knee, hip and