

**Kathy M. Ludwig**  
Associate Professor of Biomechanics

*Abbreviated Vita*

**Education:** Doctorate in Biomechanics in 1998 from Texas Woman's University

**Teaching Experience:** Associate Professor of Biomechanics and Program Coordinator for both the Physical Education and Biomechanics Programs at Barry University

**Coaching Experience:** Former head women's soccer coach at University of Arkansas

**Courses Taught at Barry University: Undergraduate:** Foundations of Sport & Exercise Science, Kinesiology, Tests and Measurement, Contemporary Issues and Ethics in Sport and Exercise, Methods of Teaching Physical Education; **Graduate:** Biomechanics, Scientific Programming in Movement Science, Teaching Health and Physical Education in Elementary School, Research Methods in Sport and Exercise Science, Motor Learning and Control, Mechanical Analysis of Human Performance, Laboratory Instrumentation in Biomechanics

**Selected Publications**

- Wood, S.A., Butcher Mokha, M., Ludwig, K.M., Cramer, C.R., Gibson, A.L (2005). "Effects of game-like activity on muscle activity and joint moments during sidestep cutting in collegiate soccer players." *Journal of Athletic Training* 40(2) Supp.
- Ludwig, K. (2004). Can We Talk? Addressing Homophobia and Heterosexism in Public Schools and Universities. *Research Quarterly for Exercise and Sport*, 75(1). Suppl.
- Ludwig, K. (2001). A kinematic analysis of soccer heading technique. In J. R. Blackwell (Ed.), *Proceedings of the XIX International Symposium on Biomechanics in Sports*, 246-249, University of San Francisco Press.

**Selected Refereed/Juried Presentations**

- Lisa K McDonnell; Kathy M Ludwig (2008). The Relationship Between Leg Extension Power and Rowing Power Output in Female Collegiate Rowers. *Southeast Chapter of the American College of Sports Medicine, SEACSM*, February 14-16, 2008, Birmingham, AL.
- Kathy M. Ludwig; Monique Butcher Mokha (2006). Effects of Ankle Bracing and Taping on Selected Lower Extremity Biomechanics During Jump Landings in Persons With FAI. Grant presentation to the *31st Annual Southeast Athletic Trainers Association (SEATA) Clinical Symposium*, March 30-April 2, 2006, Atlanta, GA.

Rhea, C, Butcher-Mokha, M, & Ludwig, K., (2004). *Influence of Up-Tempo Music on Arousal and Selected Biomechanics During a Near Maximal Bench Press*. Presented at the American Alliance of Health, Physical Education, Recreation, and Dance Conference, New Orleans, LA.

Butcher, G.M. and Ludwig, K.M. (2002). *Teaching Undergraduate Kinesiology/Biomechanics: Practical Tips for Reaching all Majors*. Presented at the American Alliance of Health, Physical Education, Recreation, and Dance Conference, San Diego, CA.

## **Research Projects**

### *In Progress*

- Psychomotor skills and heading technique of men's and women's soccer players over a season of collegiate soccer.
  - 4-Year project involves tracking collegiate soccer players over their University Career and determining whether correlations exist between several psychomotor skills (verbal recognition memory, visual recognition memory, visual processing speed, and reaction time), the number of ball head contacts and specifics of heading technique (angular velocity of the trunk and neck, linear velocity of the head, and post-contact ball velocity).

## **Grants**

2004

- Co-writer and researcher for a \$1000 grant funded from Southeast Athletic Training Association to study ankle stabilization during drop landings

2002-2004

- University Clinician for the \$450,000 Carol M. White, Physical Education for Progress (PEP) Grant

## **Service**

### *National*

- 2007-2008 Member of the Professional Preparation Steering Committee of the National Association of Sport and Physical Education (NASPE)
- 2005-2008 Chair of the Biomechanics Academy, NASPE, AAHPERD

### *State*

- 2006 President of Educational Leadership for the Florida Alliance for Health, Physical Education, Recreation, and Dance
- 2005 Florida Department of Education: Teacher Education Portfolio Review Team
- Consultant and Invited Speaker, United States Amateur Soccer Association

### *University*

2007-2008

- HPLS Faculty Senator
- Co-secretary of the Faculty Senate
- Faculty Senate Executive Committee
- Faculty Senate Academic Affairs Committee

- Co-Chair Faculty Senate Grants, Leaves, and Sabbaticals (Spring)
  - Undergraduate Council
  - DoIT Advisory Council
  - Site Coordinator for NCAA Drug Testing Program
- 2006-2007
- Faculty Senate Retention and Dismissal Committee
  - DOIT Advisory Council
  - Steering Committee for the Barry University Teacher Education and Professional Studies Unit (BUTEC)
  - BUTEC Subcommittees on Program Approval & Folio Preparation/Florida DOE, Curriculum, Accomplished Practices Assessment System, Data Collection and Analysis, Student Retention and Referral
  - Site Coordinator for NCAA Drug Testing Program
  - DOIT Advisory Council
- 2005-2006
- Search Committee for ADSOE Dean
  - DoIT Advisory Council
  - Faculty Senate Retention and Dismissal Committee
  - Steering Committee for the Barry University Teacher Education and Professional Studies Unit (BUTEC)
  - BUTEC Subcommittees on Program Approval & Folio Preparation/Florida DOE, Curriculum, Accomplished Practices Assessment System, Data Collection and Analysis, Student Retention and Referral
  - Site Coordinator for NCAA Drug Testing Program
- 2002-2005
- Faculty Senate Communications and Technology Committee
  - DOIT Advisory Council
  - Steering Committee for the Barry University Teacher Education and Professional Studies Unit (BUTEC)
  - BUTEC Subcommittees on Program Approval & Folio Preparation/Florida DOE, Curriculum, Accomplished Practices Assessment System, Data Collection and Analysis, Student Retention and Referral
  - Site Coordinator for NCAA Drug Testing Program
- 2003-2004
- Faculty Senate Communications and Technology Committee
  - DOIT Advisory Council
  - Steering Committee for the Barry University Teacher Education and Professional Studies Unit (BUTEC)
  - BUTEC Subcommittees on Program Approval & Folio Preparation/Florida DOE, Curriculum, Accomplished Practices Assessment System, Data Collection and Analysis, Student Retention and Referral
  - Site Coordinator for NCAA Drug Testing Program
- 2002-2003
- SACS Educational Programs Committee
  - Faculty Senate Communications and Technology Committee
  - Faculty Senate Committee on Educational Software

- Steering Committee for the Barry University Teacher Education and Professional Studies Unit (BUTEC)
- BUTEC Subcommittees on Program Approval & Folio Preparation/Florida DOE, Curriculum, Accomplished Practices Assessment System, Data Collection and Analysis, Student Retention and Referral
- University Recycling Task Force
- Site Coordinator for NCAA Drug Testing Program

2001-2002

- SACS Educational Programs Committee
- Faculty Senate Communications and Technology Committee
- Faculty Senate Committee on Educational Software
- Steering Committee for the Barry University Teacher Education and Professional Studies Unit (BUTEC)
- BUTEC Subcommittees on Program Approval & Folio Preparation/Florida DOE, Curriculum, Accomplished Practices Assessment System, Data Collection and Analysis, Student Retention and Referral
- University Recycling Task Force
- Site Coordinator for NCAA Drug Testing Program

2000-2001

- Faculty Senate Ethics Committee
- University Recycling Task Force

1999-2000

- Faculty Senate Ethics Committee
- University Partnerships Committee
- University Recycling Task Force

***Community***

- Coordinator for Women's Development for Florida State Soccer Association
- Florida State Soccer Association Select Team Administrator
- President of Broward Women's Soccer League