CURRICULUM VITAE
University of Pittsburgh
School of Health and Rehabilitation Science

BIOGRAPHICAL

Name: Katelyn Fleishman Allison

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EDUCATION and TRAINING

UNDERGRADUATE:

2003 – 2007	University of Pittsburgh Pittsburgh, PA	B.S.	Education Exercise Science

GRADUATE:

2007 – 2008	University of Pittsburgh Pittsburgh, PA	M.S.	Education Exercise Physiology
2009 – 2012	University of Pittsburgh Pittsburgh, PA	Ph.D.	Rehabilitation Science Sports Medicine

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APPOINTMENTS and POSITIONS

ACADEMIC:

2020 – present	University of Pittsburgh School of Health and Rehabilitation Sciences Department of Sports Medicine and Nutrition Pittsburgh, PA	Associate Professor/ Program Co-Director
2012 – 2020	University of Pittsburgh School of Health and Rehabilitation Sciences Department of Sports Medicine and Nutrition Pittsburgh, PA	Assistant Professor/ Program Director (2016-17)/ Program Co-Director (2017-)
2016 – 2019	University of Pittsburgh McGowan Institute for Regenerative Medicine Pittsburgh, PA	Member Faculty

ASSISTANTSHIP/FELLOWSHIP:

2008 – 2012	University of Pittsburgh School of Health and Rehabilitation Science Department of Sports Medicine and Nutrition Neuromuscular Research Laboratory Pittsburgh, PA	Graduate Student Researcher
2007 – 2008	University of Pittsburgh Department of Athletics Pittsburgh, PA	George I. Carson Graduate Fellowship
2007 – 2008	University of Pittsburgh School of Education Department of Health and Physical Activity Human Energy Research Laboratory Baierl Fitness Center Pittsburgh, PA	Graduate Student Assistant

INTERNSHIP/DIRECTED RESEARCH:

2007 - 2008	University of Pittsburgh School of Medicine Division of Endocrinology and Metabolism Obesity and Nutrition Research Center Pittsburgh, PA	Graduate Directed Research
2007	University of Pittsburgh School of Medicine Division of Endocrinology and Metabolism Obesity and Nutrition Research Center Pittsburgh, PA	Undergraduate Clinical Internship
2006	University of Pittsburgh School of Education Department of Health and Physical Activity Human Energy Research Laboratory Physical Activity and Weight Management Research Center Pittsburgh, PA	Undergraduate Directed Research

NON-ACADEMIC:

2008	Country Club Fitness International Edgeworth Club, Sewickley, PA	Assistant Director of Fitness
2007	University of Pittsburgh School of Medicine Division of Endocrinology and Metabolism Obesity and Nutrition Research Center Pittsburgh, PA	Student Assistant

2006	University of Pittsburgh Bellefield Fitness Center Pittsburgh, PA	Fitness Staff Member

CERTIFICATION and LICENSURE

CERTIFICATIONS:

American College of Sports Medicine Certified Exercise Physiologist (EP-C) #1004790	2007 – Present
American Red Cross CPR/AED/First Aid for the Professional Rescuer Instructor	2005 – 2008
American Red Cross CPR/AED/First Aid for the Professional Rescuer	2004 – present

MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

Women in Sports and Events	2012 – 2013
National Strength and Conditioning Association	2011 – 2014
Pi Lambda Theta Society for Educators	2008
University of Pittsburgh Varsity Letter Club	2007 – Present
University of Pittsburgh Alumni Association	2007 – Present
American College of Sports Medicine (ACSM)	2005 – Present
Mid-Atlantic Regional Chapter (ACSM)	2005 – Present

HONORS

First Place, University of Pittsburgh Performance Innovation Tournament	2018
Pittsburgh Panthers Athlete Alumni Focus profile	2016
Delivered Alumni Address at SHRS Commencement Ceremony	2015
AMSUS Sir Henry Wellcome Medal and Prize - Exemplary Published Research in Military Medicine (second author)	2012
Bruce Baker Education Travel Fund Recipient	2012
Graduate and Professional Student Association Travel Award	2012

School of Health and Rehabilitation Science Student Travel Award	2011, 2012
Freddie H. Fu, MD Graduate Research Award	2010, 2012
George I. Carson Fellowship Recipient	2007 – 2008
Outstanding Undergraduate Student Department of Health and Physical Activity	2007
University of Pittsburgh, Magna Cum Laude graduate	2007
Golden Key National Honor Society	2005 – 2007
National Society of Collegiate Scholars	2004 – 2007
Sigma Alpha Lambda Honor Society	2004 – 2007
Panther Blue/Gold Honor List	2003 – 2007
University of Pittsburgh Dean's Honor List	2003 – 2007
Varsity Letter Winner, Track and Cross Country	2003 – 2007
Big East Academic All-Star	2003

PUBLICATIONS

REFEREED ARTICLES:

1. Poploski KM, Winters JD, Lovalekar MT, Abt JP, Coleman LC, **Allison KF**. Pre-training characteristics related to the development of hip injuries during infantry training among female Marines. Journal of Science and Medicine in Sport. In Preparation.

2. Pletcher ER, Lovalekar MT, Coleman LC, Beals K, Nindl BC, **Allison KF**. Decreased percent body fat but not body mass is associated with better performance on the Marine Corps Combat Fitness Test. Journal of Strength and Conditioning Research. In Preparation.

3. Lovalekar M, Keenan KA, Beals K, Nindl BC, Pihoker AA, Coleman LC, **Allison KF**. Incidence and pattern of musculoskeletal injuries among women and men during Marine Corps training in sex-integrated units. Journal of Science and Medicine in Sport. Article In Press, 2020.

4. LaGoy AD, Johnson CD, **Allison KF**, Flanagan SD, Lovalekar MT, Nagai T, Connaboy C. Compromised dynamic postural stability under increased load carriage magnitudes, Journal of Applied Biomechanics. Jan 8:1-6, 2020.

5. Palmer H, Killelea C, Ledbetter L, **Allison K**, Sell TC. Timing of Musculoskeletal Injuries during a Single Athletic Event: A Systematic Review. Duke Orthopedic Journal. 9(1): 35-42, 2019.

6. **Allison KF**, Keenan KA, Mi Q, Lovalekar M, Beals K, Posey M, Coleman LC, Nindl BC. Fight Load Index and Body Composition are Most Associated with Combat Fitness in female Marines. *Journal of Science and Medicine in Sport.* 22(April): 494-99, 2019.

7. Beals K, Haubenstricker JE, Perlsweig KA, Beck CP, Yount DL, Lovalekar, Darnell ME, Baker RA, **Allison KF**, Nindl BC. Decreased energy availability during cold weather mountain training in special operators. International Journal of Sport Nutrition & Exercise Metabolism. (Epub ahead of print): 1-24, 2018.

8. Eagle SR, Connaboy C, Nindl BD, **Allison KF**. Significantly Increased Odds of Reporting Previous Shoulder Injury in Female Marines based on Larger Magnitude Shoulder Rotator Bilateral Strength Differences. Orthopaedic Journal of Sports Medicine. 6(2): 1-7, 2018.

9. **Allison KF**, Keenan KA, Wohleber MF, Perlsweig KA, Pletcher ER, Lovalekar M, Beals K, Coleman LC, Nindl BC. Greater ankle strength, anaerobic and aerobic capacity, and agility predict Ground Combat Military Occupational School graduation in female Marines. *Journal of Science and Medicine in Sport.* 20(Suppl 4): S85-S90, 2017.

10. Nindl BC, Eagle S, Frykman P, Palmer C, Lammi E, Reynolds K, **Allison KF**, Harman E. Functional Physical Training Improves Women's Military Occupational Performance. *Journal of Science and Medicine in Sport.* 20(Suppl 4): S91-S97, 2017.

11. Beals K, **Allison KF**, Darnell ME, Lovalekar M, Baker R, Nieman DC, Vodovotz Y, Lephart SM. The Effects of a Tart Cherry Beverage on Reducing Eccentric Exercise-Induced Muscle Soreness. Isokinetics and Exercise Science. 25(1): 53-63, 2017.

12. Nindl BC, Alemany JA, Rarick KD, Eagle SR, Darnell ME, **Allison KF**, Harman EA. Differential basal and exercise-induced IGF-I system responses to resistance vs. callisthenic-based military readiness training programs. *Growth Hormone & IGF-I Research, Special Issue: Physical Activity and Exercise*. 32: 33-40, 2017.

13. **Allison KF**, Abt JP, Beals K, Nagle EF, Lovalekar MT, Lephart SM, Sell TC. Aerobic Capacity and Isometric Knee Flexion Strength Fatigability are related to Knee Kinesthesia in Physically Active Women. *Isokinetics and Exercise Science.* 2016; 24, 357-365.

14. **Allison KF,** Sell TC, Benjaminse A, Lephart SM. Force Sense of the Knee is not Affected by Fatiguing the Knee Extensors and Flexors. *Journal of Sport Rehabilitation*. 2016; 25, 155-163.

15. Chu Y, Keenan K, **Allison K**, Lephart S, and Sell T. The positive correlation between trunk, leg, and shoulder strength and linear bat velocity at different ball locations during the baseball swing in adult baseball players. *Isokinetics and Exercise Science.* 2015; 23(4), 237-244.

16. Sell MA, Abt JP, Sell TC, Keenan KA, **Allison KF**, Lovalekar MT, Lephart SM. Reliability and Validity of Medicine Ball Toss Tests as Clinical Measures of Core Strength. *Isokinetics and Exercise Science*. 2015; 23(3): 151-160.

17. **Allison KF**, Keenan KA, Sell TC, Abt JP, Nagai T, Deluzio J, McGrail M, Lephart SM. Musculoskeletal, biomechanical, and physiological sex differences in the US Military. *Army Medical Department Journal*. 2015; Apr-Jun: 22-32.

18. Dube JJ, **Allison KF,** Rousson V, Goodpaster BH, Amati F. Exercise dose and insulin sensitivity: important consideration for type 2 diabetes prevention. *Medicine and Science in Sport and Exercise.* 2012; 44(5):793-799.

19. Crawford K, **Fleishman K,** Abt JP, Sell TC, Nagai T, Deluzio J, Rowe R, McGrail M, Lephart SM. Less Body Fat Improves Physical and Physiological Performance in Army Soldiers. *Military Medicine.* 2011; 176(1): 35-43.

BOOK CHAPTER:

1. Nagai T, **Allison KF**, Schmitz JL, Sell TC, Lephart SM. Conscious Proprioception Assessments in Sports Medicine: How Individuals Perform Each Submodality? Sports Medicine (eBook). 2016; 1-13.

PUBLISHED ABSTRACTS:

1. Johnson CC, Krajewksi KT, Dever DE, Rai A, **Allison KF**, Lovalekr M, Anderst WJ, Connaboy CC. Medial Compartment Gap is Decreased During Forced Marching and Running Load Carriage Tasks. Proceedings of ACSM 2020 Annual Meeting, San Fransisco, CA, 26-30 May 2020. MSSE, Volume 52: Supplement.

2. Poploski K, Winters J, Lovalekar M, Abt J, Coleman L, **Allison K**. Pre-Training Characteristics Related to the Development of Hip Injuries during Infantry Training Among Female Marines. American Physical Therapy Association Combined Sections Meeting. Denver, CO. February 12-15, 2020.

3. Dever DE, Krajewski KT, Johnson CC, Mi Q, Lovalekar M, **Allison KF**, Nindl BC, Anderst WJ, Connaboy C. Effect of Load Carriage Running and Forced Marching on Gait Kinematics of Recruit-Aged Females. International Society of Biomechanics (ISB/ASB 2019): Calgary, July 31-Aug 4 2019.

4. Lovalekar M, Keenan K, Beals K, Nindl BC, Coleman LC, Posey M, **Allison KF**. Descriptive epidemiology of musculoskeletal injuries among female and male Marines during Ground Combat Element Integrated Task Force. American Public Health Association 2018 Annual Meeting & Expo. Nov. 10 - Nov. 14, 2018; San Diego, CA.

5. **Allison KF**, Keenan KA, Mi Q, Lovalekar M, Beals K, Posey M, Coleman LC, Nindl BC. Physiological and Musculoskeletal Determinants of Combat Fitness in Marines. The Third International Conference on Physical Employment Standards. Portsmouth, United Kingdom, 17-19 July 2018.

6. Stump RK, Pletcher E, Connaboy C, **Allison KF**, Lovalekar M, Darnell ME, Nagai T. Effects of Fatigue Induced by Intermittent Running on Muscular Strength, Power, and Glycogen Content. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine. Harrisburg, PA. November 3-4, 2017.

7. Lagoy AD, Johnson CD, **Allison KF**, Flanagan SD, Lovalekar MT, Nagai T, Connaboy C. Effect of Increasing Military-Related Load Carriage Magnitude on Dynamic Postural Stability in Men and Women. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine. Harrisburg, PA. November 3-4, 2017.

8. Lane JS, Bansbach HM, Connaboy C, Darnell ME, Keenan K, Lovalekar M, Nagai T, **Allison KF**. The Effect of Loaded Fatigue on Loaded Postural Stability. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine. Harrisburg, PA. November 3-4, 2017.

9. Eagle S, Nindl BC, Connaboy C, **Allison KF**. Significantly Increased Odds of Reporting Previous Shoulder Injury in Females Based on Larger Magnitude Shoulder Rotator Side-to-Side Strength Differences. National Athletic Trainers' Association Annual Meeting. Houston, TX. June 29, 2017.

10. Pletcher E, Keenan KA, Lovalekar M, Coleman LC, Nindl BC, **Allison KF**. Greater Ankle Strength and Aerobic/Anaerobic Capacity in Female Marines Who Completed Ground Combat Military Occupational Specialty School. Annual Meeting of the American College of Sports Medicine. Denver, CO. June 3, 2017.

11. **Allison KF**, Keenan KA, Mi Q, Lovalekar M, Beals K, Coleman LC, Nindl BC. Body Composition and Physical Determinants of Physiological and Musculoskeletal Readiness in Marines. Annual Meeting of the American College of Sports Medicine. Denver, CO. June 1, 2017.

12. **Allison KF**, Keenan KA, Frame MM, Lovalekar MT, Beals K, Weinberg AM, Coleman LC, Nindl BC. Body Composition and Anthropometric Variables are Associated with better Physiological and Musculoskeletal Performance in Female Marines. 2016 AMEDD Military Health System Research Symposium; Kissimmee, FL.

13. Keenan KA, **Allison KF**, Frame MM, Lovalekar MT, Beals K, Weinberg AM, Coleman LC, Nindl BC. Better Fitness is Related to Lower Injury Risk in Male and Female Marines during Integrated Training. 2016 AMEDD Military Health System Research Symposium; Kissimmee, FL.

14. Pletcher EP, Lovalekar MT, Frame MM, Kido Y, Beals K, Nindl BC, **Allison KF**. Decreased percent body fat but not body mass is associated with better performance on combat fitness test in male and female Marines. National Strength and Conditioning Association Annual Meeting. New Orleans, LA. 2016

15. Bansbach H, Pletcher E, Lovalekar M, Frame M, Kido Y, Sell T, **Allison K.** Correlations and gender-related differences in dynamic postural stability and landing kinematics in U.S. Marines. American Society of Biomechanics Annual Meeting. Raleigh, NC. 2016

16. Poploski KM, Winters JD, **Allison KF**, Nagai T, Sell TC, Beals K, Abt JP, Wirt MD, Lephart SM. Lower Extremity Musculoskeletal Injury History, Strength, and Biomechanics in Female US

Army Soldiers. American College of Sports Medicine Annual Meeting; June 1-4, 2016; Boston, MA.

17. **Allison KF**, Abt JP, Sell TC, Beals K, Lovalekar M, Nagai T, Lephart SM. Physiological and Strength Characteristics of Enlisted Female Soldiers by Physical Demand Rating and PULHES Number. American College of Sports Medicine Annual Meeting; May 26-30, 2015; San Diego, CA.

18. Sell MA, Abt JP, Sell TC, Keenan KA, **Allison KF,** Lovalekar MT, Lephart SM. The Development and Assessment of Core Strength Clinical measures: The Reliability and Validity of Medicine Ball Toss Tests. National Athletic Trainer's Association Annual Meeting; June 24-27, 2014; Indianapolis, IN.

19. Abt JP, Sell TC, Beals K, **Allison KF**, Nagai T, Wood DE, Lephart SM, FACSM. Physical/Physiological Comparison between Cohorts of Naval Special Warfare SEAL Operators and SEAL Qualification Training Students. American College of Sports Medicine Annual Meeting; May 27-31, 2014; Orlando, FL.

20. **Allison KF**, Abt JP, Sell TC, Beals K, Wood D, Lephart SM. The Relationship between Body Fat, Injury and Musculoskeletal/Physiological Performance in Naval Special Warfare Operators. American College of Sports Medicine Annual Meeting; May 27-31, 2014; Orlando, FL.

21. Nagai T, Lovalekar M, **Allison KF**, Abt JP, Sell TC, Smalley BW, Wirt MD, Lephart SM, FACSM. Prevalence of Neck Pain and Low Back Pain in a Combat Aviation Brigade. American College of Sports Medicine Annual Meeting; May 27-31, 2014; Orlando, FL.

22. Nagai T, **Allison KF**, Keenan KA, Abt JP, Sell TC, Smalley BW, Wirt MD, Lephart SM. Gender Differences in Modifiable Musculoskeletal Characteristics in US Army Helicopter Pilots. Aerospace Medical Association Annual Meeting; May 11-15, 2014; San Diego, CA.

23. **Allison KF**, Sell TC, Abt JP, Beals K, Nagle EF, Lovalekar MT, Lephart SM. The Relationship between Physiological and Musculoskeletal Characteristics and Knee Kinesthesia Following Fatiguing Exercise. National Athletic Trainers' Association Annual Meeting; June 24-27, 2013; Las Vegas, NV.

24. **Allison KF**, Abt JP, Sell TC, Oliver JM, Zimmer AC, Hovey GD, Nott ZJ, Lephart SM. The Relationship between Physiological and Musculoskeletal characteristics and Tactical Performance in Naval Special Warfare Operators. 2012; 45(5) Supplement 2. Poster presentation

25. **Allison KF***,* Akins JS, Sell TC, Abt JP, Lovalekar MT, Crawford K, Lephart SM. Heart Rate and Postural Stability are Similar after Aerobic and Anaerobic Exercise. *Medicine and Science in Sport and Exercise*. 2012; 44(5) Supplement 2, 66. Poster presentation.

26. Amati F, Dube JJ, **Allison KF,** Rousson V, Goodpaster BH. Exercise dose and insulin sensitivity: important consideration for type 2 diabetes prevention. *Medicine and Science in Sport and Exercise*. 2012; 44(5) Supplement 2, 226. Poster presentation.

27. **Fleishman K***,* Crawford K, Darnell ME, Lovalekar MT, Abt JP, Lephart SM. The Effect of Tart Cherry Juice Blend in Reducing Eccentric-Induced Muscle Soreness. *Medicine and Science in Sport and Exercise*. 2011; 43(5) Supplement 1, 16. Thematic poster presentation.

28. **Fleishman K***,* Crawford K, Abt J, Sell T, Lovalekar M, Nagai T, Deluzio J, Rowe R, McGrail M, Lephart S. Optimal Body Composition for Performance of 101st Airborne (Air Assault) Soldiers. *Medicine and Science in Sport and Exercise.* 2010; 42(5) Supplement 1, 622. Poster presentation.

29. **Fleishman K**, Amati F, Jakicic J, Goodpaster B. Exercise Intensity and Insulin Sensitivity: What is the Dose Response Relationship? Free Communication Presentation. American College of Sports Medicine, 2008 Mid-Atlantic Regional Chapter Conference. Harrisburg, PA.

PROFESSIONAL ACTIVITIES

TEACHING:

Program administration:

University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition

- Program Co-Director, MS Program in Sports Medicine 2017 – present
- Program Director, MS Program in Sports Medicine 2016 – 2017

Teaching activity:

REHSCI 1215/1216 – Exercise Physiology + Lab: Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Summary: This course focuses on the effects of exercise in preventing and treating disability, in optimizing the rehabilitation process, and in maintaining the health of those with disabilities. The course emphasizes the effects of exercise on the various body systems, including the cardiovascular, neuromuscular, and musculosketetal, in individuals with disabilities.
Credits: 2 credit hours lecture / 1 credit hour lab
Students: 60 Undergraduate Students
Classes taught/semester: 28 lectures
Years taught: Fall 2020

HRS 3897 – Laboratory Techniques in Sports Medicine II: Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: The purpose of the course is to expand students' knowledge on the theory and application of biomechanics and neuromuscular function. Individuals will learn fundamental biomechanical and physiological techniques for the investigation of human movement and performance optimization. Students will be introduced to current concepts related to the following techniques and topics: strength,

flexibility/postural testing, proprioception, electromyography, autonomic physiology, perception/cognition, physiological testing, aquatic physiological testing, biomarkers, nutrition, and epidemiological assessment.
Credits: 3 credit hours
Students: 8-17 Graduate Students
Classes taught/semester: 10
Years taught: Co-Primary Instructor: Spring 2018, Spring 2019; Primary Instructor: Spring 2020

HRS 2868 – Seminar in Sports Medicine: Co-Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: Course designed to address a variety of current issues and technical advancements in sports medicine. Course divided into three units including a medical, legal, and ethical issues in sports medicine unit. The second unit will focus on the unique and newly developed technical advances in the field supported by the current research. Final unit will address the research and clinical application of isokinetic testing devices.
Credits: 3 credit hours
Students: 8-12 Graduate Students
Classes taught/semester: 7
Years taught: Spring 2016

HRS 2650 – Exercise Physiology: Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: The purpose of this course is to provide students the knowledge of theoretical and applied aspects of exercise physiology. An in-depth understanding of how the body responds when exposed to acute and chronic bouts of exercise will be provided through lectures and laboratory. Topics discussed will include physiological responses and adaptations of the cardiovascular, respiratory, metabolic, and neuromuscular systems to exercise; assessing cardiorespiratory fitness, body composition, and anaerobic performance; environmental considerations; and nutrition's role in sport and exercise performance.
Credits: 3 credit hours
Students: 5-15 Graduate Students
Classes taught/semester: 14
Years taught: Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019

HRS 3896 – Research Seminar in Sports Medicine: Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: Course is designed to introduce student to critical review of research in sports medicine. Students will critique research problems, methodology, analysis and clinical application of published manuscripts. Course will provide student with an opportunity to present and discuss paradigms and specific research proposals that are being developed for completion of thesis and dissertation requirements.
Credits: 3 credit hours
Students: 8-20 Graduate Students
Classes taught/semester: 7
Years taught: Co-Instructor: Fall 2015, Fall 2016, Fall 2017, Fall 2018; Primary Instructor: Fall 2019

HRS 3897 – Laboratory Techniques in Sports Medicine II: Guest Lecturer/Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: The purpose of the course is to expand students' knowledge on the theory and application of biomechanics and neuromuscular function. Individuals will learn fundamental biomechanical and physiological techniques for the investigation of human movement and performance optimization. Students will be introduced to current concepts related to the following techniques and topics: strength, flexibility/postural testing, proprioception, electromyography, autonomic physiology, perception/cognition, physiological testing, aquatic physiological testing, biomarkers, nutrition, and epidemiological assessment.
Credits: 3 credit hours
Students: 8-12 Graduate Students
Classes taught/semester: 2-3 (Exercise Physiology and Body Composition Units/Laboratories)
Years taught: Spring 2010, Spring 2011, Spring 2012, Spring 2013, Spring 2015, Spring 2016

HRS 3896 – Research Seminar in Sports Medicine: Guest Lecturer
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: Course is designed to introduce student to critical review of research in sports medicine. Students will critique research problems, methodology, analysis and clinical application of published manuscripts. Course will provide student with an opportunity to present and discuss paradigms and specific research proposals that are being developed for completion of thesis and dissertation requirements.
Credits: 3 credit hours
Students: 8-12 Graduate Students
Classes taught/semester: 1-3
Years taught: Fall 2012, Fall 2013, Fall 2014

CDN 1603/HRS 2631 – Nutrition Assessment 2: Guest Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Department of Sports Medicine and Nutrition
Summary: Introduction to professional knowledge and skills in nutrition focused physical examination. The course is based on the knowledge/application of the NCP and Model in professional practice. Learning experiences will include formal class presentations, class discussions, case-based problem solving and simulation laboratory sessions. Knowledge based learning leading to examination technique simulations for anthropometric measurements for body composition, nutrition focused physical examination for malnutrition diagnosing and examination techniques, e.g., vital signs, head and neck exam, intra and extra-oral exams, heart and lung auscultation, as well as, abdominal auscultation and palpation are included. At the completion of the course competency in application of nutrition focused physical examination techniques will be assessed on an individual basis.
Credits: 3 credit hours
Students: 20+ Graduate Students
Classes taught/semester: 1 laboratory experience
Years taught: Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019

REHSCI 1215 – Exercise Physiology: Guest Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Summary: This course focuses on the effects of exercise in preventing and treating disability, in optimizing the rehabilitation process, and in maintaining the health of those with disabilities. The course emphasizes the effects of exercise on the various body systems, including the cardiovascular, neuromuscular, and musculosketetal, in individuals with disabilities.
Credits: 3 credit hours
Students: 20+ Undergraduate Students
Classes taught/semester: 4 laboratory experience
Years taught: Fall 2010, Fall 2011, Fall 2012, Fall 2013

HRS 2628 – Nutrition and Performance: Guest Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Health and Rehabilitation Sciences
Summary: This course focuses on the effects of exercise in preventing and treating disability, in optimizing the rehabilitation process, and in maintaining the health of those with disabilities. The course emphasizes the effects of exercise on the various body systems, including the cardiovascular, neuromuscular, and musculosketetal, in individuals with disabilities.
Credits: 3 credit hours
Students: 5-15 Graduate Students
Classes taught/semester: 1-3 laboratory experiences
Years taught: Fall 2009, Fall 2010, Fall 2011

PEDC 0002 – Intermediate Swimming: Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Education
Department of Health and Physical Activity
Summary: For students who have learned the mechanics of basic aquatic strokes and are interested in the development of proper rhythm and timing necessary for good performance in swimming. Students are permitted to set their own achievement goals. Instruction is on an individual basis.
Credits: 1 credit hour
Students: 2 class sections/semester, 10-15 undergraduate students/section
Classes taught/semester: 14
Years taught: Fall 2007, Spring 2008

PEDC 0146 - First Aid/CPR for the Professional Rescuer: Primary Instructor
Location: University of Pittsburgh, Pittsburgh, PA
School of Education
Department of Health and Physical Activity
Summary: A laboratory-lecture course in which American red cross techniques of cardiopulmonary resuscitation (CPR) and standard first aid are presented. All students who meet the American red cross standards will receive American red cross certification.
Credits: 2 credit hours
Students: 2 class sections/semester, 10-15 undergraduate students/section
Classes taught/semester: 12
Years taught: Fall 2007, Spring 2008

INVITED LECTURES AND SEMINARS:

November 13, 2019	"Careers in Sports and Athletics" Oakland Catholic High School, Pittsburgh, PA
January 12, 2017	"Body Composition and Anthropometric Variables are Associated with Better Physiological and Musculoskeletal Performance in Female Marines" Military Women's Health Research Quarterly Call Chair: Lt Col Candy Wilson, USAF, NC; PhD, WHNP-BC
April 21, 2016	"Neuromuscular Characteristics Related to Injury Prevention and Performance: Training Considerations for Athletic and Military Populations." Guest Lecture for Physiological Adaptations to Training; University of Pittsburgh, School of Education, Department of Health and Physical Activity. Pittsburgh, PA
March 6, 2016	"Musculoskeletal, Biomechanical, and Physiological Gender Differences in the U.S. Military: Considerations for Injury and Performance." McGowan Institute for Regenerative Medicine Scientific Retreat Military-Relevant Injury Research Symposium Nemacolin Woodlands Resort, Farmington, PA
October 15, 2015	"On the Battlefield and the Playing Field: Research to Guide and Assist the Tactical and Elite Athlete" University of Pittsburgh Health Sciences Alumni and Friends reception, US Grant Hotel, San Diego, CA
June 7, 2014	"Keeping your Mitochondria and YOU Healthy through Exercise" Invited speaker, United Mitochondrial Disease Foundation Annual Symposium, Sheraton Station Square, Pittsburgh, PA
November, 2013	"Meet the Expert" Panel Mid-Atlantic Regional Chapter of the American College of Sports Medicine, Sheraton Harrisburg-Hershey Hotel, Harrisburg, PA
April, 2012 & February, 2011	UPMC Primary Care Sports Medicine Fellow Board Preparation Body Composition and Exercise Physiology Laboratory Experience Neuromuscular Research Laboratory, Pittsburgh, PA
October, 2011 & November, 2010	UPMC Primary Care Sports Medicine Fellow Board Preparation Guest Lecturer: Physiological Testing and Cardiovascular Adaptations UPMC Shadyside Hospital, Pittsburgh, PA

STUDENT ACADEMIC ADVISEES:

Allison Ross (2020-2021)
Jordan Kissner (2019-2021)
Jonathan Collins (2019)
James Wright, BS, ATC (2019-2021)
Indira (Raub) Bricker, BS, ATC (2018-2020)

Emma Minsinger, BS, ATC (2018-2020)
Cecile Garfunkel, BS (2018-2020)
Camille Johnson, BS (2017-2019)
Raul Perez, BS, ATC (2017-2018)
Dennis Dever, BS (2016-2018)
Jordan Lane, BS (2015-2017)
Morgan Skidmore, BS, ATC (2014-2016)
Amy Kalajainen, BS, ATC (2013-2015)
Brandon Crooms, BS (2012-2014)
Thamar Perry, BS, ATC (2012-2014)

INDEPENDENT STUDY COORDINATOR:
James Wright (2019)
Cecile Garfunkel (2019)
Emma Minsinger (2019)
Indira Raub (2019)
Edward (Clark) Bingol (2019)
Camille Johnson (2018)
Audrey Bentley (2018)
Dennis Dever (2017)
Jordan Lane (2016)
Amy Kalajainen (2014)
Brandon Crooms (2013)

INTERNSHIP COORDINATOR:
Kate Pinker (2017)
Joshua Sutker (2017)
Gina Cappa (2017)
Megan Wagner (2016)
Alexis Ayres (2016)
Zachary Menta (2016)
Meaghan Beckner (2012)
Jennifer Feldt (2012)

THESIS/DISSERTATION COMMITTEE MEMBERSHIP:
Jordan Kissner (thesis chair)
A Comparison of Body Composition, Physical Characteristics, and Performance between Golfers With and Without Low Back Pain. (Anticipated graduation: April 2021)

James Wright (thesis committee member)
Differences in Fear and Anxiety in Athletes Returning from a Sports Related Concussion. (Anticipated graduation: April 2021)

Emily Mulkey (thesis committee member)
Qualitative Investigation into the Lived Experiences of Expatriate Athletic Trainers. (Anticipated graduation: April 2021)

Allison Ross (thesis chair)
(working title) Vitamin D screening and relationship with bone health in collegiate athletes (Anticipated Graduation: April 2021)

Cecile Garfunkel (thesis chair)
Acute Exercise Responses in Individuals with Spinal Cord Injuries within High-Intensity Interval Training (Defended: March 2020)

Emma Minsinger (thesis chair)
Fueling Station Utilization of Division I Athletes at the University of Pittsburgh (Defended: March 2020)

Indira Raub (thesis committee member)
Vestibular Ocular Motor Screening (VOMS) Outcomes in Healthy Athletes Immediately Following Maximal Exertion (Anticipated Graduation: August 2020)

Louise Inch (thesis committee member)
Relationship between Cervical Spine Characteristics and History of Concussion among Male and Female Collegiate Athletes (Anticipated Graduation: August 2020)

Hayley Harp (thesis committee member)
Differences in External and Internal Rotation Strength and Range of Motion in Collegiate Softball Players (Anticipated Graduation: August 2020)

Carson O'Neill (thesis chair)
GPS Monitoring and correlational trends between injury and player loads in male soccer athletes (Anticipated Graduation: August 2020)

Camille Johnson (thesis committee member)
Tibiofemoral Joint Kinematics in Recruit-Aged Females at Different Load Carriage States and Marching Velocities. (Defended: November 2019)

Audrey Bentley (thesis co-chair)
The Relationship between Cervical Spine Characteristics and Return to Play Post Concussion in Division I Collegiate Athletes. (Defended: May 2019)

Dennis Dever (thesis committee member)
Effects of Load Carriage Mass and Marching Velocity on Kinetic, Kinematic, and Spatiotemporal Gait Characteristics in Recruit-Aged Physically Active Females. (Defended: March 2019)

Alice Lagoy (thesis committee member)
Impact of Increased Load Carriage Magnitude on the Dynamic Postural Stability of Men and Women (Defended: November 2017)

Jordan Lane (thesis Chair)
The Effect of Loaded Fatigue on Loaded Postural Stability (Defended: November 2017)

Regina Stump (thesis committee member)
Effects of Fatigue Induced by Intermittent Running on Muscular Strength, Power, and Glycogen Content in Female Soccer Players (Defended: August 2017)

Amy Kalajainen (thesis chair)
Comparison of the Balance Error Scoring System and the NeuroCom Sensory Organization Test in Healthy, Physically Active Adults (Defended: March 2015)

Mallory Sell (thesis committee member)
Thesis Title: The Development and Assessment of Core Strength Clinical Measures: Validity and Reliability of Medicine Ball Toss Tests (Defended: July 2013)

SCHOLARLY PAPER COMMITTEES:
Jordyn Cunningham
Gillian Snow
Clark Bingol
Abigail Solis
Jamie McKeon
Mackenzie Dailey
Skyler Cottrell
Raul Perez
Morgan Skidmore
Brandon Crooms
Thamar Perry

PROFESSIONAL DEVELOPMENT:

2020	Introduction to Canvas Workshop
2019	University of Pittsburgh Human Performance Optimization Symposium
2018-2019	Highly Engaged/Highly Interactive Instructor Seminar (Faculty Pathway)
2018	Writing Assignment Development Workshop
2018	enCORE™ Operator Training
2016	University of Pittsburgh Health Sciences: Young Faculty Leadership Academy

RESEARCH

PREVIOUS GRANT SUPPORT:

1. Title: Impulse Swimming Test
   Role: Co-Investigator
   Years: 1 May 2018 – 31 December 2018
   Source: University of Pittsburgh Performance Innovation Tournament (Department of Athletics, Innovation Institute, Office of Research)
   Purpose: Utilize $80,000 of seed money to develop and validate Impulse tethered swimming test

2. Title: Expanding the Role of Women in the Marine Corps: Injury Prevention and Human Performance
   *Role: Principal Investigator (2014-2016); Scott M. Lephart, PhD (2013-2014)
   Years: 2013 – 2016
   Percent Effort: 45%
   Source: United States Department of Defense/Office of Naval Research
   Purpose: The objective of this research initiative is to explore current fitness standards beyond initial fitness tests to determine the gender-neutral physical, physiological, and tactical requirements for the newly opened MOS.
   **Did not compete for funding as Principal Investigator; became PI after Scott Lephart departed the University of Pittsburgh*

3. Title: Effect of Crossfit exercise training on health and performance
   Role: Principal Investigator
   Years: 2015 - 2017
   Source: Departmental Research Award
   Purpose: The objective of this research is to examine musculoskeletal, physiological, performance, and injuries in individuals participating in 12 weeks of Crossfit training

4. Title: MARSOC Injury Prevention and Human Performance Research Initiative
   Role: Co-investigator (PI: Scott M. Lephart, PhD / Takashi Nagai, PhD)
   Years: 2013 – 2017
   Source: United States Department of Defense/Office of Naval Research
   Purpose: The objective of this research initiative is to create a systematic and sustained injury prevention and performance enhancement training program based on the specific tasks and demands of the MARSOC Special Forces Soldier.

5. Title: AFSOC Injury Prevention/Performance Optimization
   Role: Co-investigator (PI: Timothy C. Sell, PhD, PT 2012-2015, Christopher Connaboy, PhD 2015-2016)
   Years: 2012 -2016
   Source: 711th Human Performance Wing, Human Effectiveness Directorate, Biosciences and Performance Division Development Award, US Air Force
   Purpose: The objective of this study is to identify and modify risk factors contributing to unintentional injuries of AFSOC Operators.

6. Title: Naval Special Warfare Group Tactical Athlete program Human Performance Research Initiative
   Role: Co-investigator (PI: Scott M Lephart, PhD 2005-2014; Timothy C. Sell, PhD 2014-2015, Kim Beals, PhD, RD, CSSD 2015-2016)
   Years: 2005 – 2016
   Source: United States Department of Defense/Office of Naval Research
   Purpose: The objective of this study is to identify and modify risk factors contributing to unintentional injuries of NSW

7. Title: USASOC Injury Prevention/performance Optimization Musculoskeletal Screening Initiative
   Role: Co-investigator (PI: John P. Abt, PhD, ATC and Timothy C. Sell, PhD, PT)
   Years: 2010 – 2014
   Source: Defense Medical Research and Development Program – US Army Medical Research and Materiel Command
   Purpose: The overall objective of this research is to provide the scientific arm by which USASOC will refine its THOR3 program by modifying risk factors for unintentional musculoskeletal injury and improving physical readiness

8. Title: The Relationship between Musculoskeletal Strength, Physiological Characteristics, and Knee Kinesthesia Following Fatiguing Exercise
   Role: Principal Investigator
   Years: 2012
   Source: Freddie H. Fu Graduate Research Award ($3500)

9. Title: The Effect of Maximal Aerobic and Anaerobic Exercise Bouts on Heart Rate Recovery and Postural Control
   Role: Principal Investigator

Years: 2010
Source: Freddie H. Fu Graduate Research Award ($2500)

10. Title: The Effect of Tart Cherry Juice Blend in Reducing Eccentric-Induced Muscle Soreness
Role: Study Coordinator (PI: Kim Crawford, PhD, RD, CSSD)
Years: 2009
Source: Cherry Marketing Institute ($50,000)

NOT FUNDED:

1. Title: Evaluation and identification of risk factors for lower extremity stress syndrome and fractures in physically active adults
Role: PI
Year: 2017
Source: Competitive Medical Research Fund

2. Title: Veteran's Health, Wellness, and Performance
Role: PI
Year: 2016
Source: Pennsylvania Veteran's Trust Fund

3. Title: Administration of Neuregulin 1 as a Strategy for Increasing Cardiovascular Fitness
Role: Co-Investigator (PI: Bernhard Kuhn, MD)
Year: 2016
Source: Congressionally Directed Medical Research Programs
Purpose: The objective of this research initiative is to investigate the relationship between NRG1 and cardiorespiratory fitness.

4. Title: Injury Prevention and Human Performance Research within the US Marine Corps
Role: Principal Investigator
Years: proposed 2015-2017
Percent Effort: 45%
Source: United States Department of Defense/Office of Naval Research
Purpose: The proposed project will prospectively evaluate the physical and physiological predictors of attrition, injury, and milestones of both male and female Marines throughout the tactical lifespan.

RESEARCH RELATED ACTIVITIES:

Journal Refereeing:

2019 – present	Manuscript Reviewer, Journal of Applied Biomechanics
2019 – present	Manuscript Reviewer, Military Medical Research
2018 – present	Manuscript Reviewer, Journal of Sport Sciences
2015 – present	Manuscript Reviewer, Journal of Strength and Conditioning Research
2014 – present	Manuscript Reviewer, Journal of Sports Rehabilitation
2013 – present	Manuscript Reviewer, Medicine and Science in Sport and Exercise

MEDIA:

"Combat Roles in the Military Open to Women"
90.5 WESA Essential Pittsburgh, December 11, 2015
"Marines Hope To Determine Gender Neutral Standards for Ground Combat"
All Things Considered, NPR, March 26, 2015
"Testing a Few Good Women for Combat"
At War: Notes from the Front Lines, New York Times, March 19, 2015
"Testing male, female combat strength"
San Diego Union Tribune, March 6, 2015
"Combat Training: Can Female Marines Get The Job Done?"
NPR, November 24, 2014
"Marine Corps Puts a Few Good Women to the Test"
The Wall Street Journal, November 07, 2014
"Female Marines get a leg up to put boots on the ground"
School of Health and Rehabilitation Sciences Facets Magazine, Fall 2014
"'Adaptability and Flexibility': The Changing Role of Women in the Marine Corps"
Naval Science & Technology Future Force Magazine, Fall 2014
"Marine Corps prepares for historic gender test"
Marine Corps Times, October 12, 2014
"Women in combat? Pitt studies Marines' physical requirements"
University Times, University of Pittsburgh, July 24, 2014
"The Marines Are Looking For A Few Good (Combat-Ready) Women"
NPR, July 07, 2014

LIST OF CURRENT RESEARCH INTERESTS:

- Exercise and nutritional contributions to injury prevention, health, wellness, and performance optimization
- Female injury prevention, performance enhancement, and health
- Effects of fatigue on proprioception and neuromuscular control

SERVICE

PROFESSIONAL:

2013 – 2017	Mid-Atlantic Regional Chapter of American College of Sports Medicine Annual Meeting Research Committee
2013 – 2015	Mid-Atlantic Regional Chapter of American College of Sports Medicine Annual Meeting Planning Committee

UNIVERSITY:

2019 – present	School of Health and Rehabilitation Sciences Teaching Task Force
2019 – present	Panthers to Pros Mentoring Program
2018 – present	University of Pittsburgh Varsity Letter Club Awardees of Distinction Nominating Committee

2018 – present	University of Pittsburgh Alumni Association Board of Directors Alumni Awards Review Committee (2018) Chancellor's Social Media Task Force (2019 – present) Executive Committee (2020 – 2022)
2016 – 2020	School of Health and Rehabilitation Sciences Faculty Executive Committee
2016 – 2018	Website and social media administrator for Neuromuscular Research Laboratory
2015 – present	University of Pittsburgh Alumni Association School, College, and Regional (SCR) College Committee, SHRS Representative SCR Chair (2020 – 2022)
2015 – present	University of Pittsburgh Senate Athletics and Recreation Committee
2013 – 2016	University of Pittsburgh Varsity Letter Club – Board of Directors
2013 – 2016	School of Health and Rehabilitation Sciences Nominations Committee
2009 – Present	Pitt Department of Athletics/Life Skills Alumni Networking Volunteer
2008	Pitt Council of Graduate Students in Education Annual Conference, Session Moderator
2006 – 2007	Panther PAWS (Pitt Athletes Working with Students), Fitness for Children volunteer
2006	University of Pittsburgh Faculty/Student Wellness Expo Volunteer

COMMUNITY:

2019 – present	412 Food Rescue volunteer
2019	Riverview High School Kids' STEM Fair Volunteer
2015 – present	Family House of Pittsburgh – Young Business Leaders Committee Social Media Chair and Polo Planning Sub-Committee Co-Chair YBL Family House Board Liaison for Governance
2014	Family House of Pittsburgh – House Volunteer
2012 – 2014	UPMC "Team Pittsburgh" U.S. Transplant Olympics Team, Volunteer Trainer
2011	"Soccer in the Community" Volunteer
2010	Initiated "Buckets for Haiti" collection at NMRL for Brother's Brother Foundation
2009	G-20 Summit volunteer, "Red-Up Pittsburgh" project and International Ambassador
2009	Girls on the Run 5K Volunteer
2009	Minority Wellness Fair Volunteer (fitness testing)
2007	National Society of Collegiate Scholars Community Service Project Volunteer
2006	Community College of Allegheny County Wellness Expo Volunteer
2006	YMCA Healthy Kids Day Volunteer, Activity Supervisor
2006	Children's Hospital of Pittsburgh of UPMC Student-athlete Visitor