

## *Curriculum Vitae*

### **Lynnsey R. Bowling, Ph.D.**

Assistant Professor, Department of Kinesiology  
Director, Cancer Recovery & Fitness Program  
University of Wisconsin – Eau Claire  
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### **EDUCATION**

#### **Doctor of Philosophy, May 2025**

Exercise Science and Health Promotion

University of North Alabama, Florence, AL

Dissertation: *The effects of pre-exercise nutrition on post-exercise substrate oxidation in females*

#### **Master of Science, December 2021**

Exercise Science

Arkansas State University, Jonesboro, AR

Thesis: *The effects of carbohydrate mouth rinse on soccer-specific skills in collegiate female soccer players*

#### **Bachelor of Science, August 2020**

Exercise Science

Arkansas State University, Jonesboro, AR

*Cum Laude*

### **TEACHING EXPERIENCE**

#### **Assistant Professor, University of Wisconsin – Eau Claire**

KINS 308 – Exercise Physiology

KINS 351 – Cancer Recovery and Fitness Lab

KINS 476 – Exercise Science Seminar

KINS 491 – Practicum in Rehabilitation Science

#### **Graduate Assistant, University of North Alabama**

##### **Primary instructor:**

HPE 353W – Physiology of Exercise (Fall 2024)

HPE 496 – Cardiopulmonary Rehabilitation and ECG Interpretation (Spring 2024)

HPE 175 – Essentials of Healthy Living (Fall 2022, Spring 2025)

Assistant to instructor:

HPE 353W – Physiology of Exercise (Spring 2024)

HPE 451 – Applied Statistics in Health and Exercise Science (Fall 2023)

HPE 496 – Cardiopulmonary Rehabilitation and ECG Interpretation (Spring 2023)

**Adjunct Instructor in Exercise Science, Arkansas State University**

Primary instructor:

ES 3633 – Nutrition for Health, Sport, and Exercise (Summer 2022)

ES 3623 – Techniques of Physiological Fitness Assessment (Spring 2022)

ES 3653 – Techniques of Aerobic Conditioning (Spring 2022)

HLTH 2513 – Principles of Personal Health (Spring 2022)

**Graduate Assistant, Arkansas State University**

Primary instructor:

HLTH 2513 – Principles of Personal Health (Spring 2021, Fall 2021)

Assistant to instructor:

HLTH 3563 – Human Sexuality (Fall 2020, 2021; Spring 2021)

ES 3543 – Fundamentals of Motion (Summer 2021)

ES 3623 – Techniques of Physiological Fitness Assessment (Fall 2020, 2021; Spring 2021)

ES 4763 – Kinesiology (Fall 2021; Spring 2021; Summer 2021)

ES 4843 – Practicum Preinternship (Spring 2021)

**RESEARCH**

**Bowling LR**, Dillard CC, Barker GA, Taitt DR, O’Neal EK, Killen LG, Carpenter RS, Waldman HS. Protein ingestion and high-intensity resistance training decrease respiratory exchange ratio following exercise in females across various body compositions. (Data collection in process; estimated to complete by Dec 2025)

**Bowling LR**, Dillard CC, Barker GA, Taitt DR, O’Neal EK, Killen LG, Carpenter RS, Waldman HS. High-intensity resistance training, but not protein or caffeine ingestion, increase fat oxidation post-exercise in overweight females. (Data collection in process; estimated to complete by Dec 2025)

Parten AL, **Bowling LR**, Knight SN, and O'Neal EK. Effects of resistance training on post-exercise metabolism in female special populations: A Systematic Review. (Systematic review conducted August 2025; estimated submission date Jan 2026)

O'Neal EK, Knight SN, **Bowling LR**, Scudamore EM, Scudamore V, Waldman HS. Highest concordance of NCAA Division I male cross-country runners' metabolic cost at race pace occurs with highest submaximal velocity. *Research in Strength and Performance*. (Manuscript in preparation for submission, estimated submission date Nov 2025)

O'Neal EK, Knight SN, **Bowling LR**, Scudamore EM, Scudamore V, Waldman HS. Dual  $\dot{V}O_{2\text{plateau}}$  method for confirming  $\dot{V}O_{2\text{max}}$  validity in trained male runners. *Medicine and Science in Sports and Exercise* (Manuscript in preparation for submission, estimated submission date Oct 2025)

O'Neal EK, Knight SN, **Bowling LR**, Scudamore EM, Scudamore V, Waldman HS. Challenging methodological dogma: Optimal velocity to assess running economy of NCAA Division I female cross-country runners. *European Journal of Sports Science* (In review)

**Bowling LR**, Knight SN, Scudamore EM, Waldman HS, Scudamore V, O'Neal EK. Trained runners need lower respiratory exchange ratio criterion during graded exercise tests. *Research in Strength and Performance* (In review)

Knight SN, Scudamore EM, **Bowling LR**, Pribyslavskaya V, Waldman HS, O'Neal EK. Dual  $\dot{V}O_{2\text{plateau}}$  method for confirming  $\dot{V}O_{2\text{max}}$  validity in trained female runners. *Scandinavian Journal of Sports Medicine and Science* (In review)

**Bowling LR**, Knight SN, Dillard CC, Waldman HS. (2025). Eumenorrheic women require at least a 6-hour fasting duration before the assessment of fat oxidation rates during submaximal exercise. *The Journal of Strength & Conditioning Research*, 39(9), 1054-1058

**Bowling LR**, Scudamore EM, Church BJ, Pribyslavskaya V. (2025). The effects of a carbohydrate mouth rinse on soccer-specific skills following a morning high-intensity practice. *International Journal of Exercise Science*: Vol. 18 Iss. 6, Pages 215-224.

Lara DA, Knight SN, **Bowling LR**, Dominy TA, Killen LG, Waldman HS, Scudamore EM, O'Neal EK. (2025). Effects of pre-run walk under load on reactive strength index, running economy, and performance of recreationally competitive, male runners. *Research in Strength and Performance*, 5(1), 1-9

- Carder MJ, O'Neal EK, Pribyslavska V, Knight, SK, **Bowling LR**, Scudamore EM. (2023). Retrospective and contemporary predictors of NCAA Division I cross-country performance are sex specific. *The Journal of Strength & Conditioning Research*, 37(11), 2267-2272
- Dean TM, Knight SN, Robinson MJ, **Bowling LR**, Russell AR, O'Neal EK, Davis BA. (2023). 24-h Hydration profile of collegiate soccer players training once versus twice per day in the heat. *Physiology & Behavior*, 269, 1-7
- O'Neal EK, Knight SN, Scudamore EM, Pribyslavska V, **Bowling LR**, Carder JM. (2023) Are NCAA Division I Women's and Men's Cross-country Runners competing in the same race? A physiological perspective. *Journal of Sports and Games*, 4(1), 15-22
- Davis BA, **Bowling LR**, Dean TM, Knight SN, Robinson MA, Russell AR, O'Neal EK. (2022). Collegiate soccer players consistently underestimate practice sweat losses regardless of practice sweat loss volume. *Montenegrin Journal of Sports Science and Medicine*, 11(2), 65-70

### *Presentations*

- O'Neal EK and **Bowling LR**. Aerobic capacity assessment in runners: historical review and contemporary application. Southeast ACSM Conference, February 2025. Oral presentation.
- Liao RL, Cousart AG, Walter AB, Funderburg AS, Knight SN, **Bowling LR**, Dominy TA, O'Neal EK, Mahadevan-Jansen A. Correlating high-wavenumber raman spectra to hydration status in high performance individuals. Military Health System Research Symposium, August 2024. Poster Presentation.
- Knight SN and **Bowling LR**. Valid assessment of aerobic capacity in trained runners? Terminology, techniques, and application considerations. Central States Regional ACSM Conference, March 2024. Oral presentation.
- Bowling LR**, Scudamore EM, Knight SN, Pribyslavska V, Carder MJ, Waldman HS, O'Neal EK. Validity of respiratory exchange ratio as a secondary confirmation marker of  $VO_{2max}$  in trained runners. Central States Regional ACSM Conference, March 2024. Poster presentation.
- Knight SN, **Bowling LR**, Carder MJ, Scudamore EM, Pribyslavska V, Waldman HS, O'Neal EK.  $VO_2$  and RER at 90% of 5-km race pace better represents metabolic profile of NCAA division I female runners than lower intensities. Central States Regional ACSM Conference, March 2024. Poster presentation.

Dominy TA, Knight SN, **Bowling LR**, Carder MJ, Scudamore EM, Pribyslavska V, Waldman HS, O'Neal EK.  $\text{VO}_2$  and RER at 90% of 8-km race pace most accurately represents running economy. Central States Regional ACSM Conference, March 2024. Poster presentation.

Lara DA, Knight SN, **Bowling LR**, Killen LG, Waldman HS, Scudamore EM, O'Neal EK. Pre-run walking under load does not alter reactive strength index, running economy, or performance of recreationally competitive male runners. Central States Regional ACSM Conference, March 2024. Poster presentation.

Funderburg AR, Liao R, Cousart A, Elstub L, Masson L, Knight SN, **Bowling LR**, O'Neal EK, Mahadevan-Jansen A. Non-Invasive monitoring of hydration status using Raman Spectroscopy. Military Health System Research Symposium, August 2023. Poster presentation.

**Bowling LR**, Knight SN, Carder MJ, Scudamore EM, Pribyslavska V, O'Neal EK.  $\text{VO}_{2\text{max}}$  observation window differences in male NCAA cross-country athletes. Southeast ACSM Conference, February 2023. Poster presentation.

Knight SN, **Bowling LR**, Carder MJ, Scudamore EM, Pribyslavska V, O'Neal EK.  $\text{VO}_{2\text{max}}$  observation window differences in female NCAA cross-country athletes. Southeast ACSM Conference, February 2023. Poster presentation.

**Bowling LR**, EM Scudamore, JB Church, Pribyslavska V. Carbohydrate mouth rinse does not improve soccer-specific skills following a morning high-intensity practice. Central States Regional ACSM Conference, March 2022. Poster presentation.

**Bowling LR**, Scudamore EM, Church BJ, Belk WF, Burner LM, O'Hare D, Sanders CW, Shepherd M, Woods B, Pribyslavska V. The effects of a carbohydrate mouth rinse on soccer-specific skills following a morning high-intensity practice. Central States Regional ACSM Conference, March 2021, Virtual.

Sanders CW, Pribyslavska V, Church BJ, **Bowling LR**, Burner LM, Loar JA, Scudamore EM. The effects of external loading during daily living on ACFT performance. Central States Regional ACSM Conference, March 2021, Virtual.

#### University Presentations

**Bowling LR**, Scudamore EM, Knight SN, Pribyslavska V, Carder MJ, Waldman HS, O'Neal EK. Validity of respiratory exchange ratio as a secondary confirmation marker of  $\text{VO}_{2\text{max}}$  in trained runners. Scholar Day, April 2024. Poster presentation.

Knight SN, **Bowling LR**, Carder MJ, Scudamore EM, Pribyslavska V, Waldman HS, O'Neal EK.  $\text{VO}_2$  and RER at 90% of 5-km race pace better represents metabolic profile of NCAA

division I female runners than lower intensities. Scholar Day, April 2024. Poster presentation.

Dominy TA, Knight SN, **Bowling LR**, Carder MJ, Scudamore EM, Pribyslavskaya V, Waldman HS, O'Neal EK.  $\text{VO}_2$  and RER at 90% of 8-km race pace most accurately represents running economy. Scholar Day, April 2024. Poster presentation.

**Bowling LR**, Knight SN, Carder MJ, Scudamore EM, Pribyslavskaya V, O'Neal EK.  $\text{VO}_{2\text{max}}$  observation window differences in male NCAA cross-country athletes. University of North Alabama, Scholar Day, April 2023.

Knight SN, **Bowling LR**, Carder MJ, Scudamore EM, Pribyslavskaya V, O'Neal EK.  $\text{VO}_{2\text{max}}$  observation window differences in female NCAA cross-country athletes. University of North Alabama, Scholar Day, April 2023.

**Bowling LR**, Scudamore EM, Church BJ, Belk WF, Burner LM, O'Hare D, Sanders CW, Shepherd M, Woods B, Pribyslavskaya V. The effects of a carbohydrate mouth rinse on soccer-specific skills following a morning high-intensity practice. Arkansas State University, Create@State, April 2021, Virtual.

### **EXTERNAL AND INTERNAL FUNDING**

Validity of respiratory exchange ratio as a secondary confirmation marker of  $\text{VO}_{2\text{max}}$  in trained runners. Bowling LR, Scudamore EM, Knight SN, Pribyslavskaya V, Carder MJ, Waldman HS, O'Neal EK. UNA COEHS Graduate Student Research Grant **(\$300; February 2024: awarded)**.

O'Neal EK (sub award PI; PTE PI Mahadevan-Jansen A, Vanderbilt Biomedical Engineering). Raman Spectroscopy for Non-Invasive Physiological Monitoring of Hydration. Army Research Office W81XWH-20-2-0064 **(\$131,679 February 2023: awarded)**. *Role: UNA Data Collection Site Coordinator.*

Kinney K. Innovative University Designation Program: Funding Request to Support a *Shoals Arts and Entertainment Enterprise Venture*. Proposal submitted to Innovate Alabama **(\$250,000; September 2023: in review)**. *Role: Document organization and preparation.*

$\text{VO}_{2\text{max}}$  observation window difference in male NCAA cross-country athletes. Bowling LR, Knight SN, Carder MJ, Scudamore EM, Pribyslavskaya V, O'Neal EK. UNA COEHS Graduate Student Research Grant **(\$319; February 2023: awarded)**.

### **PROFESSIONAL EXPERIENCE**

**Graduate Research Assistant, University of North Alabama**

January 2023 – present

Funded by: Army Research Office W81XWH-20-2-0064

Responsibilities: Coordinate scheduling for experimental trials. Conduct sweat and running economy analyses with local and external colleagues. Collect data during trials regarding the validation of Raman Spectroscopy as a hydration measure.

### **Graduate Assistant, University of North Alabama**

August 2022 – December 2022

Responsibilities: Teach undergraduate-level Exercise Science and Health Promotion courses. Assist with data collection for research projects being conducted by other graduate students or faculty. Revise assigned course materials and assist faculty with any extracurricular activities.

### **Adjunct Instructor, Arkansas State University**

January 2022 – August 2022

Responsibilities: Instructor of undergraduate-level Exercise Science and Health courses.

### **Graduate Assistant, Arkansas State University**

August 2020 – December 2021

Responsibilities: Primary instructor and teaching assistant to instructor of undergraduate-level Exercise Science and Health courses. Routine maintenance of laboratory equipment (Parvo metabolic analyzer, BodPod). Revising curriculum and course material. Assisting faculty with extracurricular activities.

## **SERVICE**

### **University and Profession Related**

University of North Alabama:

- Secretary for UNA Exercise Science and Health Promotion Organization (Fall 2024 – present)
- Graduate Student Council Representative (Fall 2023 – Spring 2024)
- Honors College Associate Dean Search Committee Member (Spring 2023)
- Advising Undergraduate Students (Fall 2022 – present)
- Volunteer for UNA Collegiate Cross-Country Meet (Fall 2022 – present)

- Volunteer for COEHS Student Ambassador Program (Spring 2023 – Fall 2023)
- Volunteer for UNA Preview Day (Fall 2022)
- Member of Southeast chapter of American College of Sports Medicine (Fall 2022 – present)

Arkansas State University:

- Member of Central States chapter of American College of Sports Medicine (Fall 2020 – present)
- Student Grievance Committee Member (2020-2021)
- Member of the Sigma Omicron chapter of Alpha Omicron Pi (2017-2020)

#### Community Related

- Keep the Shoals Beautiful Clean-up, Muscle Shoals, AL (April 2023)
- Volunteer for American Red Cross, Jonesboro, AR (May 2020 – May 2021)
- Volunteer for Miracle Kids, Jonesboro, AR (August 2016 – May 2020)

### **ADDITIONAL EXPERIENCE**

#### Professional Development:

UNA Intensive Workshop – Excellence in Online Teaching & Learning with Dr. Racheal Brooks (October 2023)

New Faculty Orientation - Managing Yourself for Success in Higher Education with Dr. Jean Ann Helm Allen (March 2023)

New Faculty Orientation - IRB Submission with Dr. Laura Williams (February 2023)

#### Certifications and awards:

American Council on Exercise: Group Fitness Instructor Certification

Red Cross: CPR & AED Certification

Outstanding Graduate Student Teaching Award, University of North Alabama College of Education & Human Sciences (April 2025)

Outstanding Graduate Student in Exercise Science, Arkansas State University (April 2022)

### **REFERENCES**

Eric K. O’Neal, PhD  
Professor, UNA  
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eoneal1@una.edu

Hunter S. Waldman, PhD  
Assistant Professor, UNA  
(256) 765-4996  
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Associate Professor, ASU  
(870) 680-8132  
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