Savanna N. Knight, PhD
Curriculum Vitae

Texas State University
Department of Health & Human Performance
2550 Bending Branch Way
Allen, TX 75070
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EDUCATION

University of North Alabama *May 2025*
Ph.D. Exercise Science and Health Promotion
Dissertation: Independent effects of menstrual cycle phase & diurnal variation in recreational female runners

University of North Alabama *July 2021*
M.S. Exercise Science and Health Promotion
Thesis: Impact of modest proximal external loading on long run performance

Stephen F. Austin State University *December 2019*
B.S. Kinesiology
Minor: Health Science

PROFESSIONAL EXPERIENCE

Assistant Professor of Instruction *January 2025 – Present*
Texas State University – Allen, Texas
- Coordinate delivery of exercise physiology testing equipment
- Assemble items within exercise physiology teaching lab
- Recruit interested students for Collin-College location of Clinical ESS program
- Develop & deliver asynchronous online courses offered within the ESS program

Guest Exercise Instructor *May 2025 – August 2025; July 2026*
Touchmark – McKinney, Texas
- Led fitness classes for individuals in independent & assisted living environments
- Create informational & entertaining presentations to teach residents of history or culture
- Choreographed themed exercise sessions to accompany informative presentations
- Planned & taught aerobic fitness classes emphasizing coordination & balance

Research Graduate Assistant *January 2023 – December 2024*
Funded by: Army Research Office W81XWH-20-2-0064
Raman Spectroscopy for Non-Invasive Physiological Monitoring of Hydration.
- Coordinate subject and investigator 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

Laboratory Graduate Assistant *August 2020 – December 2022*
University of North Alabama – Florence, Alabama

- Calibrated and work with variety of metabolic carts and exercise equipment
- Collaborated with other laboratory graduate assistants to collect various data for research projects
- Maintained the safety and organization of the laboratory as well as the employee wellness center
- Instruct undergraduates on how to complete laboratory activities

Wellness Graduate Assistant *January 2020 – August 2020*
University of North Alabama – Florence, Alabama

- Organized health focused meetings with participants to guide them to healthier lifestyles
- Created informational flyers to provide brief facts about health-related topics
- Contacted outside organizations to schedule seminars led by experts in respective fields
- Interacted with wellness program members to create a welcoming, supportive environment

Assistant Fitness Instructor *September 2019 – December 2019*
Nacogdoches Senior Center – Nacogdoches, Texas

- Conversed with participants prior to the start of class to create relationships
- Developed exercises that will help seniors with their daily movements
- Demonstrated functional movements to teach participants the proper form
- Communicated with the lead instructor to establish a cohesive exercise session

TEACHING EXPERIENCE

Texas State University
Strength & Conditioning – ESS 4320.752
Seminar in Exercise & Sport Science – ESS 1101.004
Exercise Physiology – ESS 3317.004
Psychosocial Aspects of Exercise & Sport Science – ESS 3323.004
Exercise Physiology – ESS 5317.A01

University of North Alabama
Walking/Jogging/Running – HPE 105
Essentials of Healthy Living – HPE 175
Weight Training and Conditioning – HPE 102
Applied Statistics in Health and Exercise Science – HPE 451
Intro to Fitness Testing – HPE 360

RESEARCH

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.* 2025; 5(1).

Lara D, **Knight SN**, Bowling LR, Dominy TA, Waldman HS, Scudamore EM, Andre TL, O'Neal EK. Effects of pre-run walk under load on reactive strength index. *Research in Strength and Performance.* 2025; 5(1).

Bowling LR, **Knight SN**, Dillard CC, Waldman HS. 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*. 2025

Carder MJ, O'Neal EK, Pribyslavska V, **Knight SN**, Bowling LR, Scudamore EM. Retrospective and contemporary predictors of NCAA Division I cross-country performance are sex-specific. *The Journal of Strength & Conditioning Research.* 2023; 37(11): 2267-2272.

O'Neal EK, Waldman HS, **Knight SN**, Scudamore EM, Pribyslavska V, Bowling LR, Carder MJ. 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.* 2023; 4(1): 15-22.

Dean TM, **Knight SN**, Robinson MA, Bowling LR, Russell AR, O'Neal EK, and Davis BA. 24h Hydration profile of collegiate soccer players training once versus twice per day in the heat. *Physiology & Behavior.* 2023; 269: 1-7.

Waldman HS, Bryant AR, **Knight SN**, Killen LG, Davis BA, Robinson MA, & O'Neal EK. Assessment of metabolic flexibility by substrate oxidation responses and blood lactate in women expressing varying levels of aerobic fitness and body fat. *The Journal of Strength & Conditioning Research*. 2023; 37(3): 581-588.

Davis BA, Bowling LR, Dean TM, **Knight SN**, Robinson MA, Russell AR, O'Neal EK. Collegiate soccer players consistently underestimate practice sweat losses regardless of practice sweat loss volume. *Montenegrin Journal of Sports Science and Medicine,* 2022; 11(2), 65-70.

Almalki, JA, **Knight SN**, Poulos SP, Stanfield DL, Killen LG, Waldman HS, & O'Neal EK. Hydration and cognitive task performance in children: a systematic review. *Journal of Cognitive Enhancement.* 2022; 6(4): 519-530.

PRESENTATIONS

1. Liao RL, Cousart AG, Walter AB, Voss T, Rourke-Funderburg AS, **Knight SN**, Bowling LR, Dominy TA, O'Neal EO, Mahadevan-Jansen A. Development of an accurate, non-invasive method for rapid in vivo hydration assessment of marathon runners using high-wavenumber Raman Spectroscopy. Society of Photo-Optical Instrumentation Engineers Photonics West. March 2025: San Francisco, CA. Oral Presentation.

2. Liao RL, Cousart AG, Walter AB, Rourke-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: Kissimmee, FL. Poster Presentation.

3. **Knight SN** and Bowling LR. Valid assessment of aerobic capacity in trained runners? Terminology, techniques, and application considerations. Central States American College of Sports Medicine. March 2024: Kansas City, MO. Symposium.

4. **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 represent metabolic profile of NCAA Division I female runners than lower intensities. Central States American College of Sports Medicine. March 2024: Kansas City, MO. Poster presentation.

5. 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: Kansas City, MO. Poster presentation.

6. Dominy TA, **Knight SN**, Bowling LR, Carder MJ, Scudamore EM, Pribyslavska V, Waldman HS, O'Neal EK. VO_2 and RER at 90% of 8-km race pace most accurately represents running economy. Central States Regional ACSM Conference. March 2024: Kansas City, MO. Poster presentation.

7. 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: Kansas City, MO. Poster presentation.

8. 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: Orlando, FL. Oral presentation.

9. **Knight SN**, Bowling LR, Carder MJ, Scudamore EM, Pribyslavska V, & O'Neal EK. Observation window influences metabolic profile data for trained female runners during a graded exercise test. Scholars Day. April 2023: Florence, AL. Poster presentation.

10. Bowling LR, **Knight SN**, Carder MJ, Scudamore EM, Pribyslavska V, & O'Neal EK. Observation window influences metabolic profile data for trained male runners during a graded exercise test. Scholars Day. April 2023: Florence, AL. Poster presentation.

11. **Knight SN**, Bowling LR, Carder MJ, Scudamore EM, Pribyslavska V, & O'Neal EK. Observation window influences metabolic profile data for trained female runners during a graded exercise test. Southeastern American College of Sports Medicine. February 2023: Greenville, SC. Poster presentation.

12. Bowling LR, **Knight SN**, Carder MJ, Scudamore EM, Pribyslavska V, & O'Neal EK. Observation window influences metabolic profile data for trained male runners during a graded exercise test. Southeastern American College of Sports Medicine. February 2023: Greenville, SC. Poster presentation.

13. **Knight SN.** The Rundown on Stand-ups. ASAPHERD Alabama State Association for Health, Physical Education, Recreation, and Dance. November 2022; Birmingham, AL. Oral presentation.

14. **Knight SN**, Dean T, Alghamdi BA, Davis BA, Killen LG, Waldman HS, and O'Neal EK. Pilot Study: Impact of 2.4-kg proximal external loading on 15-km run performance in collegiate cross country-runners. Research and Reunion. October 2022: Florence, AL. Oral presentation.

15. **Knight SN**, Dean T, Alghamdi BA, Davis BA, Killen LG, Waldman HS, and O'Neal EK. Pilot Study: Impact of 2.4-kg proximal external loading on 15-km run performance in collegiate cross country-runners. Scholars Day. April 2022: Florence, AL. Poster presentation.

16. **Knight SN** and O'Neal EK. Metabolic profiles of NCAA Division I cross-country runners at competition pace. Invited Rapid Research Pre-Conference Session. Southeastern American College of Sports Medicine. February 2022: Greenville, SC. Oral presentation.

17. **Knight SN**, Dean T, Alghamdi BA, Davis BA, Killen LG, Waldman HS, and O'Neal EK. Pilot Study: Impact of 2.4-kg proximal external loading on 15-km run performance in collegiate cross country-runners. Southeastern American College of Sports Medicine. February 2022: Greenville, SC. Poster presentation; Finalist for Masters Research Award.

18. Alves VA, **Knight SN**, Dean T, Alghamdi, Davis BA, Killen LG, Waldman HS, and O'Neal EK. Pilot Study; Impact of 2.4-kg proximal external loading on 10-km run performance in recreationally competitive runners. Southeastern American College of Sports Medicine. February 2022: Greenville, SC. Poster presentation.

19. Dean TM, **Knight SN**, Robinson MA, Russell AR, O'Neal EK, and Davis BA. 24-h hydration behaviors during once versus twice per day collegiate soccer practices in hot and humid conditions. Southeastern American College of Sports Medicine. February 2022: Greenville, SC. Poster presentation.

20. Robinson MA, Dean TM, **Knight SN**, Russell AR, O'Neal EK, and Davis BA. Male collegiate soccer players underestimate sweat losses regardless of sweat loss volume. Southeastern American College of Sports Medicine. February 2022: Greenville, SC. Poster presentation.

21. O'Neal EK and **Knight SN.** Factors of consideration when assessing running economy. Southeastern American College of Sports Medicine. February 2022: Greenville, SC. Symposium.

EXTERNAL AND INTERNAL FUNDING

VO_2 and RER at 90% of 5-km race pace better represent metabolic profile of NCAA Division I female runners than lower intensities. **Knight SN**, Bowling LR, Carder MJ, Scudamore EM, Pribyslavska V, Waldman HS, & O'Neal EK. UNA COEHS Graduate Student Research Grant **($300.00; February 2024: awarded).**

Kinney K. Innovative University Designation Program: Funding Request to Support a *Shoals Arts and Entertainment Enterprise Venture.* Proposal submitted Innovate Alabama **($250,000.00; September 2023: in review).** *Assisted in document preparation.*

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 **($131,679.00; February 2023: awarded).**
UNA Data Collection Site Coordinator

VO_{2max} observation window differences in female NCAA cross-country athletes. **Knight SN**, Bowling LR, Carder MJ, Scudamore EM, Pribyslavska V, & O'Neal EK. UNA COEHS Graduate Student Research Grant **($450.00; February 2023: awarded).**

PILOT STUDY: Impact of 2.4 kg proximal external loading on 15-km run performance in collegiate cross-country runners. **Knight SN**, Dean T, Alghamdi BA, Davis BA, Killen LG, Waldman HS, and O'Neal EK. (2022). UNA COEHS Graduate Student Research Grant **($400.00; February 2022: awarded).**

AWARDS AND HONORS

- University of North Alabama Outstanding Scholarship Award by a Graduate Student, 2022
- University of North Alabama Outstanding Graduate Student, 2021
- Stephen F. Austin State University Academic Excellence Scholarship recipient 6 semesters
- Magna cum Laude

CERTFICATIONS

CITI IRB Training; expires January 2026
Red Cross CPR training; expires January 2026
Basic Biosafety Training; expires April 2028
Hazard Communication; completed June 2025

SERVICE

Research in Strength and Performance — *Spring 2025 - current*
Associate Editor

Southeast American College of Sports Medicine Annual Meeting — *Spring 2023*
Pacer for group run

UNA E-Sports Tournament — *Spring 2023*
Registration Table Attendant

UNA Human Performance Research Group — *Fall 2021 – Fall 2022*
Treasurer

Central High School Mock Interviews — *Spring 2022*
Volunteer Interviewer

First Friday UNA Day — *Fall 2022*
Kinesiology Representative

Preview Day — *Fall 2022*
Kinesiology Representative; Laboratory Tour Guide

Mitchel West Center for Social Inclusion Coming Out Workshop — *Fall 2022*
Guest Speaker

UNA West Study Away — *Summer 2022*
Chaperone

UNA Collegiate Cross-Country Meet — *Fall 2022*
Assistant to the athletic training tent

Bad Kitty 5k and 10k Trail Race — *Spring 2022*
Race Co-Director

Howl-O-Ween Dash 5k and 1 Mile Fun Run — *Fall 2021*

Volunteer Course Director

Undergraduate Academic Advising *Fall 2021*
Assistant Advisor

PROFESSIONAL DEVELOPMENT

New to Teaching? We've Got Your "Easy Button"! *Fall 2025*
TXST Faculty Development

Promotion for Non-Tenure Line Faculty Session *Summer 2025*
TXST Faculty Development

Grant Writers Guide to the Galaxy: Foundations for Grant Writing *Spring 2025*
TXST Faculty Development

COEHS New Faculty/GA Orientation *Spring 2023*
IRB Submissions

How to be an Inclusive Educator *Spring 2022*
University of North Alabama

COEHS New Faculty/GA Orientation *Fall 2021*
IRB Panel Discussion

MEMBERSHIPS

American College of Sports Medicine *January 2020 – Present*

Alabama State Association for Health, *Fall 2022 – Fall 2023*
Physical Education, Recreation, and Dance