(915) 227-6408 El Paso, TX brittaney.huskey@icloud.com curriculum vitae

Brittaney R. Huskey, M.S., TSAC-F

E-RYT 200, RYT 500, YACEP

Research Interests

My primary research interests are in tactical biomechanics, with an emphasis on optimizing strength and conditioning programs for law enforcement, firefighters, and military personnel. My work involves assessing and mitigating musculoskeletal injury risks through a comprehensive approach that includes motion capture, force plates, and Biodex systems. I analyze the data produced to develop statistical insights and visualizations directed at improving physical performance and safety. I am specifically focused on working with SWAT teams to evaluate load carriage and task-specific movements. This involves investigating the biomechanical impacts of tactical gear and operational tasks and developing targeted interventions to enhance operational efficiency and reduce injury rates.

Education

2022-Present **The University of Texas at El Paso**
PhD Interdisciplinary Health Sciences
Specialized coursework in Biomechanics
- *Graduate Certificate – Intelligence and National Security Studies*

2020-2022 **The University of Texas at El Paso**
MS Kinesiology
Awarded the Sandy Tyler Endowed Fellowship for the 2021-2022 year

2016-2019 **American Military University**
BA Religion
Specialized coursework in eastern religions and religious cults

Honors and Awards

April 2025 **CHS Dodson Research Grant Award**
Research grant provided by the College of Health Sciences at the University of Texas at El Paso

Jan 2024 **BRIAR IARPA**
Graduate Research Associate

	Nov 2021	**Winner of the Big Ideas Competition** Health and Life Sciences track for university level
	Oct 2021	**Social Entrepreneurship Pitch Competition** 3rd place winner at The University of Texas at El Paso
	Aug 2021	**Sandy Tyler Endowed Fellowship** Awarded for the 2021-2022

Research Experience

May 2024 — **Dynamic Balance Control: Is There a Connection Between Performance in Static and Dynamic Tasks?** The University of Texas at El Paso
Dr. Jeffrey D. Eggleston
- Use of slip treadmill
- Collect gait data with Vicon motion capture system
- Process data through V3D

Jan 2024 – June 2024 — **BRIAR IARPA** The University of Texas at El Paso
Graduate Research Associate, Dr. Jeffrey D. Eggleston
- Place segmental reflector markers on participants
- Collect gait data by using Vicon motion capture system

May 2023 — **Effects of Prophylactic Ankle Braces on Knee and Hip Landing Kinematics and Kinetics During Sport-Specific Movements** The University of Texas at El Paso
Dr. Jeffrey D. Eggleston
- Place segmental reflector markers on participants
- Collect jump force data by using Vicon motion capture system
- Process data through V3D

Teaching Experience

Aug 2024-Present — **The University of Texas at El Paso**
Teaching Assistant, Rehab Sciences
- Teaching assistant for Scientific Inquiry in Rehab Sciences (DRSC 4301), an undergraduate course averaging 55 students per semester. This course is an introduction to research designs and methods used in health sciences. Use of systematic approaches to review, summarize and critiques scientific literature. Management and analysis of data using statistical programs to answer common clinical research questions.

Assisted DPT in grading assignments, proctoring exams, and holding office hours

Aug 2022 - May 2023 — **The University of Texas at El Paso**
Adjunct Professor, Kinesiology

- Instructor of record for Personal Training (KIN 4301), an undergraduate course averaging 40 students per semester. Personal Training Experience in the application of exercise technique and prescription in the development of fitness and strength training programs for a variety of populations.

Developed quizzes, exams, and homework

Revised the syllabus to meet accreditation standards

- Restructuring of course, and adopting new book: *NSCA's Essentials of Personal Training – 3rd Edition*

Aug 2021-
May 2023

The University of Texas at El Paso
Teaching Assistant, Kinesiology

- Teaching assistant (lead lab instructor) for Exercise Prescription & Programming (KIN 4330), an undergraduate course averaging 40 students per semester (20 per lab section). Exercise Prescription & Programming: Prepares students to identify exercise needs and prescribe appropriate exercises and physical activities in a coherent exercise program, customized to individual needs and goals that enhances health-related physical fitness for children and adults. Weekly fieldwork required.
- Developed quizzes and lab assignments
- Revised the syllabus to meet accreditation standards

Aug 2020 -
Dec 2020

The University of Texas at El Paso
Teaching Assistant, Kinesiology

- Teaching assistant (lead lab instructor) for Exercise Physiology (KIN 4312), an undergraduate course averaging 120 students per semester (20 per lab section). Exercise Physiology Study of the physiological adaptations the body makes to exercise stress and the principles of strength development and muscular and cardiorespiratory endurance development.
- Developed quizzes and lab assignments

Publications

2023

Eggleston, J.D., Conroy, K.E., Moreno, A.D., Travis, W.J., **Huskey, B.R.,** Vanderhoof, H.R. The use of preferred footwear versus barefoot condition in gait analysis: A methodological investigation. *Journal of Biomechanics*.

https://doi-org.utep.idm.oclc.org/10.1016/j.jbiomech.2023.111817

Conference Presentations

Apr 2024

Huskey, B.R., Macias, A.N., Moreno, A.G., Conroy, K.E., Vanderhoof, H.R., & Eggleston, J.D. *Prophylactic Ankle Braces do not Affect Ankle Kinematics nor Landing Kinetics During Long-to-Countermovement Jumps.* Podium Presentation.
South Central American Society of Biomechanics Regional Conference. University of North Texas Health Science Center.
Fort Worth, TX.

Moreno, A.G., Vanderhoof, H.R., Macias, A.N., Conroy, K.E., **Huskey, B.R.,** & Eggleston, J.D. *The Influence of Lower Extremity Angular Velocity on Baseball Hitting Mechanics: A Pilot Study.* Podium Presentation.
South Central American Society of Biomechanics Regional Conference. University of North Texas Health Science Center.
Fort Worth, TX.

Macias, A.N., Conroy, K.E., **Huskey, B.R.,** Moreno, A.G., Vanderhoof, H.R., & Eggleston, J.D. *Examining Pitching Mechanics During Change-Up and Fastball: A pilot Study.* Poster Presentation.
South Central American Society of Biomechanics Regional Conference. University of North Texas Health Science Center.
Fort Worth, TX.

Apr 2022

Huskey, B.R. *My Graduate Experience During Covid*.
Podium Presentation.
21st Century Southwest Leadership Conference.
University of Texas at El Paso.
El Paso, TX.

Invited Lectures

Apr 2024

Effects of Prophylactic Ankle Braces on Lower Body Joints During Sports Specific Jumps
University of Texas at El Paso
Presented to undergraduate course Research Methods in Kinesiology (KIN 3325)

Professional Training

Feb 2025	**Virtual Performance Summit powered by Bridge** Online
Jun 2024	**NSCA Tactical Strength and Conditioning Practitioner's Course** Denver, CO
Aug 2023	**NSCA Tactical Annual Training** Las Vegas, NV

Professional Affiliations

2024-Present	**American Society of Biomechanics (ASB)** Student membership, ASB ID: 7332
2023-Present	**National Strength and Conditioning Association (NSCA)** Professional membership, NSCA ID: 2059270
2017-Present	**Yoga alliance** E-RYT 200, RYT 500, YACEP; YA ID: 218188

Student Organizations

2021-2024	**Black Student Union (BSU)** [President, Vice President], The University of Texas at El Paso
2021-2023	**Graduate Student Assembly (GSA)** [Vice President, Treasurer], The University of Texas at El Paso