



Applied Cognitive Sciences

Hunter DeBusk, Ph.D.

1050 South Lambs Lane, Mica, WA 99023

phone/fax: (509) 624-3714

hunter@ACSciences.com

LICENSE:

Associate Human Factors Professional, August 2018-present
By the Board of Certification in Professional Ergonomics
License Number: 2263

EDUCATION:

Mississippi State University, 2018
Ph.D. in Human Factors & Ergonomics
Department of Industrial and Systems Engineering
GPA: 4.0 out of 4.0

Mississippi State University, 2016
M.S. in Exercise Physiology
Department of Kinesiology
GPA: 4.0 out of 4.0

University of Mississippi, 2014
B.S. in Exercise Science
Department of Health, Exercise Science, & Recreation Management
GPA: 3.76 out of 4.0

PROFESSIONAL EXPERIENCE:

Applied Cognitive Sciences (2018-present) I am currently an Associate Engineer wherein the focus of my work is in human factors. My areas of expertise include but are not limited to: facility design and fall-at elevation accidents, workplace injuries, and automotive accidents.

PUBLICATIONS:

- Chander, H., Knight, A.C., Garner, J.C., Wade, C., Carruth, D., DeBusk, H., & Hill, C.M. "Impact of military type footwear and workload on heel contact dynamics during slip events." [International Journal of Industrial Ergonomics](#), 66, 18-25, 2018.
- DeBusk, H., Hill, C.M., Chander, H., Knight, A.C., & Babski-Reeves, K. "Influence of Military Workload and Footwear on Static and Dynamic Balance Performance." [International Journal of Industrial Ergonomics](#), 64, 51-58, 2018.
- Simpson, J. D., DeBusk, H., Hill, C., Knight, A., & Chander, H. "The role of military footwear and workload on ground reaction forces during a simulated lateral ankle sprain mechanism." [The Foot](#), 53-57, 2018.
- Morris, C. E., Garner, J. C., Owens, S. G., Valliant, M. W., DeBusk, H., & Loftin, M. "A Prospective Study Comparing Distance-based vs. Time-based Exercise Prescriptions of Walking and Running in Previously Sedentary Overweight Adults." [International Journal of Exercise Science](#), 10(5), 782-797, 2017.
- Morris, C. E., Chander, H., Garner, J. C., DeBusk, H., Owens, S. G., Valliant, M. W., & Loftin, M. "Evaluating Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults." [Journal of Functional Morphology and Kinesiology](#), 2(2), 19, 2017.
- Hill, C. M., DeBusk, H., Knight, A. C., & Chander, H. "Influence of military-type workload and footwear on muscle exertion during static standing." [Footwear Science](#), 9(3), 169-180, 2017.
- Babski-Reeves, K., Burch, R., Debusk, H., & Smith, E. "A10 – UAS Control Station Ergonomics Considerations: Tasks CS-6

through CS-8." [U.S. Department of Transportation Federal Aviation Administration, Office of Aviation Research](#), 2017.

PRESENTATIONS:

- DeBusk, H., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Hill, C.M., Wade, C., & Garner, J.C. "The Effect of Commonly Used Alternative Footwear on Balance." 62nd ACSM Annual Meeting and 6th World Congress on Exercise is Medicine, San Diego CA, May 26-30, 2015.
- DeBusk, H., Babski-Reeves, K., & Chander, H." Preliminary analysis of StrongArm® ergoskeleton on knee and hip kinematics and user comfort." Proceedings of the Human Factors and Ergonomics Society Annual Meeting, Austin TX, October 9-13, 2017.
- Chander, H., Knight, A.C., Garner, J.C., Wade, C., DeBusk, H., Wilson, S.J., Gdovin, J.R., Hill, C.M., & Carruth, D. "Muscle Activity during Postural Stability Tasks: Role of Military Footwear and Workload." Proceedings of the American Society of Biomechanics Annual Conference, Boulder CO, August 8-11, 2017.
- Wilson, S.J., Chander, H., Knight, A.C., Garner, J.C., Wade, C., Luginsland, L., Hill C.M., Gdovin, J., DeBusk, H., & Carruth, D. "Lower extremity kinematics in military footwear during slip events." Proceedings of the American Society of Biomechanics Annual Conference, Boulder CO, August 8-11, 2017.
- Hill, C.M., DeBusk, H., Wilson, S.J., Gdovin, J.R., Williams, C.C., Luginsland, L.A., Knight, A.C., & Chander, H. "Influence of military type footwear and workload on co-contraction index in unilateral stance." Proceedings of the American Society of Biomechanics Annual Conference, Boulder CO, August 8-11 2017.
- Simpson, J.D., DeBusk, H., Hill, C.M., Miller, B.L., Knight, A.C., & Chander, H. "Effect of military footwear type on ankle stability following a simulated military workload." Proceedings of the American Society of Biomechanics Annual Conference, Boulder CO, August 8-11 2017.
- DeBusk, H., Hill, C.M., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C., & Chander, H. "Impact of High Top Military Type Boots on Balance." Abstracted: Proceedings of the 40th American Society of Biomechanics Annual Meeting, Raleigh, NC, August 2-5, 2016.
- Hill, C.M., DeBusk, H., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C., & Chander, H. "Impact of Military Type Footwear and Workload on Co-contraction Index in Static Balance." Abstracted: Proceedings of the 40th American Society of Biomechanics Annual Meeting, Raleigh, NC, Aug 2-5, 2016.
- Hill, C.M., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., DeBusk, H., Wade, C., & Garner, J.C. "Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear." 62nd ACSM Annual Meeting and 6th World Congress on Exercise is Medicine, San Diego CA, May 26-30, 2015.
- DeBusk, H., Hill, C.M., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C., & Chander, H. "Effects of Military Type Footwear and Workload on Static Balance." SEACSM Annual Meeting, Greenville, SC, February 18th - 20th, 2016.
- Turner, A.J., DeBusk, H., Lowell, R.K., Hill, C.M., Miller, B.L., Simpson, J.D., Knight, A.C., & Chander, H. "Effects of Military Type Footwear and Workload on Unilateral Static Balance." Southeast American College of Sports Medicine, Greenville, SC, 2017.
- Dispennette, A.K., Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. "Impact of an Exercise Intervention on Human Balance Center of Pressure Sway Parameters in Previously Sedentary, Overweight Adults." Southeast American College of Sports Medicine, Greenville, SC, 2017.
- Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W., & Loftin, M. "Evaluating Perturbations to Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults." Southeast American College of Sports Medicine, Greenville, SC, 2017.
- Wiczynski, T.L., Morris C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W., & Loftin, M. "The Relationship of Weight Loss and Balance Performance Following an Exercise Intervention in Previously Sedentary Overweight Adults." Southeast American College of Sports Medicine, Greenville, SC, 2017.
- Chander, H., Garner, J.C., Wade, C., Knight, A.C., DeBusk, H., & Hill, C.M. "Lower Extremity Muscle Activity in Alternative Footwear During Slip Events: A Preliminary Analysis." SEACSM Annual Meeting, Greenville, SC, February 18th-20th, 2016.
- Hill, C.M., DeBusk, H., Stewart, T., Simpson, J.D., Miller, B.L., Knight, A.C., & Chander, H. "Impact of Military Type Footwear and Workload on Muscle Activity in Static Balance." SEACSM Annual Meeting, Greenville, SC February 18-20, 2016.
- Miller, B.L., DeBusk, H., Hill, C.M., Stewart, T., Simpson, J.D., Knight, A.C., & Chander, H. "Impact of Military Boot Type and Physical Work Load on Dynamic Balance." SEACSM Annual Meeting, Greenville, SC, February 18th-20th, 2016.
- Simpson, J.D., Hill, C.M., DeBusk, H., Stewart, T., Miller, B.L., Knight, A.C., & Chander, H. "Influence of Military Boot Types and Physiological Workload on Lower Extremity Muscle Activation." SEACSM Annual Meeting, Greenville, SC, February 18th - 20th, 2016.
- DeBusk, H., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Hill, C.M., Wade, C., & Garner, J.C. "The Effect of Commonly Used Alternative Footwear on Balance." SEACSM Annual Meeting, Jacksonville, FL, February 12-14, 2015.
- Hill, C.M., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., DeBusk, H., Wade, C., & Garner, J.C. "Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear." SEACSM Annual Meeting, Jacksonville, FL, February 12-14, 2015.

CONTINUING EDUCATION:

- Attended the Human Factors and Ergonomics Society Annual Meeting, Austin, Texas, October 2017