

**CAREER PATHS OF RECENT ALUMNI**

**Minnesota State Mankato: Exercise Physiology (MS Program)**

Our graduate degree in exercise physiology appeals to students with a variety of career interests. This document summarizes the diversity of such career paths and showcases the successes of our recent alumni.

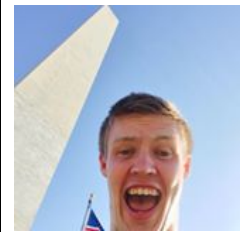
**Aaron Solomonson, MS, CSCS (May 2015), Interest: Tactical Strength & Conditioning**

As a graduate assistant, Aaron served as the head strength & conditioning specialist at Loyola Catholic High School. Aaron serves in the US Army and possesses the US Army Master Fitness Trainer Certified credential, and also is certified with the National Strength & Conditioning Association. Aaron’s research centered on the application of the critical speed concept to high-intensity interval training with tactical athletes. He validated a new model for training tactical athletes based on an unloaded and loaded 3-min all-out exercise test.



**Anssi Saari, MS, CSCS (May 2015), Interest: Strength & Conditioning**

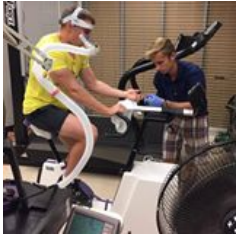



Anssi came to us from Finland with a strong background in biomechanics. He served as a graduate assistant, teaching kinesiology/biomechanics laboratories, among other courses, and helped us progress our laboratory set up as we moved to a wireless EMG and high-speed kinematic system. Anssi’s manuscript validated the critical speed concept to shuttle running. He is now employed a *Lead Performance Coach* with *True Athletic Performance* located in Frederick, Maryland, USA.







**Brandon Rohrig, MS, CSCS (May 2015), Interest: Worksite Wellness/Nutrition**

Brandon arrived with a background in nutrition, and from his photo, you can tell is an accomplished body builder. As a graduate assistant, he was the *Fitness Wellness Center Director* at South Central Community College. His manuscript explored the physiological and performance changes in female physique competition preparation. Supported by the *Creating a Strong and Vibrant Graduate Community* grant, Brandon gathered data related to stress and hunger measuring hormones such as cortisol and leptin, and conducted a battery testing on body composition, aerobic power, and anaerobic capacity. He moved on to Ohio to complete his internship required to become a registered dietician (RD).



<p><b>Mark E. Hartman, MS, MA (May 2015), Interest: Research/Doctoral Studies</b></p> <p>Mark came to us with an MA degree in Sport and Exercise Psychology and a goal of gaining admission to a doctoral program related to the neuropsychology of fatigue. He served as a GA for Force Science Institute under Dr. Bill Lewinski. His research involved experimentally manipulating W' in glycogen-loaded and depleted conditions, in order to study neuromuscular, metabolic, and psychological time-dependent responses to exhaustive exercise. Mark moved on to study for his PhD under Dr. Paddy Ekkekakis, PhD, FACSM, at Iowa State University.</p>	
<p><b>Amanda Younger, MS (May, 2014), Interest: Exercise &amp; Wellness</b></p> <p>Amanda served as a graduate assistant, teaching laboratories in exercise physiology and sport nutrition. In her time at Minnesota State, Mankato, Amanda helped create exercise programs for the Mayo Clinic Health System bariatric surgery program, and helped raise over \$700 for exercise and physical activity programs our lab established in Port Elizabeth, South Africa. As part of her degree, she earned her HFS certification (ACSM) and is certified as a Wellness Coach from <i>Well Coaches</i>. She is lead author on the manuscript: Acute moderate exercise does not attenuate cardiometabolic function associated with a bout of prolonged sitting, published in the <i>Journal of Sport Sciences</i>. That article is the first to showcase our lab's potential for vascular assessment using Doppler ultrasound.</p>	
<p><b>Nicholas Jamnick, MS (May, 2014), Interest: Research/Doctoral Studies</b></p> <p>Nick served as a graduate student teaching laboratories in exercise physiology and the graded exercise testing courses. In the Spring of 2014, Nick resided abroad and served as a research affiliate under Prof Tim Noakes at the South Africa Sports Medicine Institute, a program within the University of Cape Town. His master degree centered on validating a new submaximal graded exercise test for estimating <math>VO_{2max}</math>, a paper recently accepted for publication in the journal <i>Medicine &amp; Science in Sport &amp; Exercise</i>. In the 2014-15 year, Nick served as a fixed-term assistant professor at our university. In his stay with us, Nick was coauthor on four other publications along with seven research presentations at regional and national conferences. He moved on to pursue a PhD under Prof David Bishop at Victoria University in Melbourne, AUS.</p>	
<p><b>Samuel Courtright (May, 2014), Interest: Exercise &amp; Wellness</b></p> <p>Sam was a graduate assistant in exercise science and later served as an adjunct faculty member teaching an inaugural course: HP 102 Individualized Exercise, a course that served the general student population. In that course, Sam mentored senior-level undergraduate exercise students serving as personal trainers to students amongst the general population. We received great feedback on the course, due in large part to Sam's involvement. Sam also trained the MSU swimming team using the 3-min all-out exercise test (3 MT), and is writing up the results of that experiment for publication. Sam recently accepted employment with Andrews Residence as an Exercise Specialist.</p>	

<p><b>Jennifer Dysterheft, MS (May 2013), Interest: Research/Doctoral Studies</b></p> <p>Jen completed her undergraduate degree at Minnesota State University Mankato in 2011, and decided our graduate program would be her best path to gain admission to a PhD program. She started out as a graduate assistant in the Biology Department and shifted over to the Department of Human Performance to serve as graduate assistant teaching laboratories in exercise physiology and structural kinesiology &amp; biomechanics. In Spring 2012, Jen traveled to Oregon to assist with the “traffic stop study” funded by <i>Force Science Institute</i>, and was subsequently offered a graduate assistantship with that organization. In her time with us, Jen published two research studies: one on the “traffic stop study” (<i>Law Enforcement Executive Forum</i>), and the second on the “sprint start study” (<i>International Journal of Exercise Science</i>). Jen moved on to accept a doctoral assistantship and is a PhD student in BioBehavioral Kinesiology at the University of Illinois. She remains as a scientific consultant to <i>Force Science Institute</i>.</p>	
<p><b>Ida E. Clark MS (May, 2012), Interest: Research/Doctoral Studies</b></p> <p>Ida completed BA and BS degrees at our university, and distinguished herself as a person with a passion for research. She was a GA for two years in our laboratory, and was asked to remain as faculty at Minnesota State Mankato for another two years (2012-14). In that time, Ida mentored a lot of our undergraduate students, and managed to write 7 peer-reviewed articles, with several more in progress. Ida also presented 16 studies at regional and national conferences, including a podium lecture at the 2013 <i>Great Lakes Athletic Trainers’ Association Symposium</i>. Ida left in 2014 to pursue a doctoral degree under Anni Vanhantalo at the University of Exeter, in the United Kingdom.</p>	
<p><b>Daniel Sedgeman (May, 2011), Interest: Wellness, Clinical Exercise Physiology</b></p> <p>On top of completing an internship in cardiac rehabilitation, Dan (bottom left) carried out a research experiment examining two different approaches for verifying maximum oxygen uptake. His work was published in the <i>International Journal of Sports Medicine</i> (Sedgeman, D.T., Dalleck, L.C., Clark, I.E., Jamnick, N.A., Pettitt, R.W. (2013). Analysis of submaximal and supramaximal square-wave bouts for consistently verifying “true” maximal oxygen uptake. <i>International Journal of Sports Medicine</i> 34: 1058-62.).</p>	
<p><b>Tyler M. Johnson (Dec, 2010), Interest: Wellness Coaching/Personal Training</b></p> <p>Tyler came to our program with his undergraduate degree in psychology. He was interested in personal training and decided to take undergraduate courses in human anatomy, human physiology, exercise physiology, and nutrition (note: the latter two courses are required of any applicant to our graduate program). As part of his graduate degree, Tyler completed a study on the reliability of the 3-min all-out exercise test. His research was published in <i>Medicine &amp; Science in Sports &amp; Exercise</i> (Johnson, T.M., Sexton, P.J., Placek, A.M., Murray, S.R., Pettitt, R.W. (2011). Reliability analysis of the 3-min all-out exercise test for cycle ergometry. <i>Medicine &amp; Science in Sport &amp; Exercise</i> 43: 2375-2380). Tyler now combines his two talents, psychology and exercise physiology, and currently works as a wellness coach and personal trainer.</p>	

<p><b>Thomas Truedson, MS, ATC, EMT, CSCS, PES (Dec, 2010), Interest: Sports Medicine/Athletic Training</b></p> <p>Thomas Truedson studied human performance at MSU, Mankato from 2007-2009. During his time at MSU, Tom also worked as the athletic trainer with the men's baseball team. His graduate paper explored the existing research on different throwing styles among baseball pitchers and their implications for injury. Tom's work was published at a two-part article in the <i>International Journal of Athletic Therapy &amp; Training</i> (Trudson, T.N., Sexton, P.J., Pettitt, R.W. (2012). Unconventional pitching styles &amp; implications for injury. Part 1: biomechanics &amp; pathology. <i>International Journal of Athletic Therapy &amp; Training</i> 17: 35-39. Trudson, T.N., Sexton, P.J., Pettitt, R.W. (2012). Unconventional pitching styles &amp; implications for injury. Part 2: treatment &amp; rehabilitation. <i>International Journal of Athletic Therapy &amp; Training</i> 17: 40-44.). Tom earned his Master of Science degree in 2010, with an emphasis in exercise physiology. He earned his bachelor degree from St. Cloud State University and became a certified athletic trainer (ATC) in 2007. He now works with the New York Mets organization.</p>	
<p><b>Tedi R. Andrews (May, 2010), Interest: Strength Training &amp; Conditioning</b></p> <p>Tedi came to our graduate exercise physiology program with an interest in working with competitive athletes. As part of her plan of study, Tedi evaluated the effects of combining heavy-load versus explosive lifts with vertical jumps to evoke the postactivation potentiation phenomenon. Her research was published in 2011 (Andrews, T.R., Mackey, T., Inkrott, T., Murray, S.R., Clark, I., Pettitt, R.W. 2011. Effect of hang cleans or squats paired with countermovement vertical jumps on vertical displacement. <i>Journal of Strength &amp; Conditioning Research</i>, 25: 2448-2452). Tedi moved on to accept a paid-intern with the National Strength &amp; Conditioning Association Headquarters in Colorado Springs, CO.</p>	
<p><b>Jill M. Kirkeberg (May, 2010), Interest: Cardiac Rehabilitation</b></p> <p>Jill came to our graduate exercise physiology program with an interest in obtaining employment in cardiac rehabilitation. One staple test in that area is the graded exercise test (GXT) for maximum oxygen uptake. Jill's research examined three different GXT protocols and a new verification bout procedure. Her research was published in 2011 (Kirkeberg, J.M., Dalleck, L.C., Kamphoff, C.S., Pettitt, R.W. 2011. Validity of 3 protocols for verifying VO2max. <i>International Journal of Sports Medicine</i>. 4: 266-270). As part of her degree, Jill also completed an extensive summer intern in cardiac rehabilitation. Jill gained employment as a clinical exercise physiologist with the Cardiopulmonary Rehabilitation Unit at Havasu Regional Medical Center in Lake Havasu, Arizona.</p>	