

Physical Activity Letter

Kansas State University

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SPRING 2011

From the Department of Kinesiology

Potential students parents often ask, "what can I do with a degree in Kinesiology"? Like most things in life, a degree in Kinesiology doesn't assure success in a career. A degree in Kinesiology provides the student with a platform to be competitive in the job market or competitive in gaining access to advanced education.

At K-State there are about 500 undergraduate students majoring in Kinesiology of which about 100 students graduate each year. Immediately following graduation most students will seek employment, but over 40% will enroll in graduate or health professional schools.

Last year, Kinesiology graduates continued their education in kinesiology, medicine, chiropractics, physical therapy, optometry, occupational therapy, nursing, dietetics, nutrition, physical education, dentistry,

dental hygiene, radiologic technology, physician assistant, and law. Kinesiology students also reported last year that they gained employment in health care settings (primary care office, optometrist office), physical therapy clinics, commercial for-profit fitness centers, not-for-profit fitness programs, and hospital health centers.

Many of our graduates clearly have been immediately successful. The students of today are different than the undergraduates of twenty years ago. Probably due to the economy, today's students are focused on getting that first job or getting into health professional school. Although that first job or entry into health professional school is important, I hope the K-State Kinesiology students have an educational experience that builds their skills and passion for a life-enriching career.

Kinesiology students have changed over the last 20 years, but the passion of the students has stayed the same. Students are still passionate about physical activity. They enjoy studying about physical activity and doing physical activity themselves. I am not sure what the jobs will be for a Kinesiology graduate in 20 years, but I am confident that K-State provide them with the platform for a successful career.

David Dzewaltowski, Ph.D.
Professor and Department Head



AHEARN FIELDHOUSE



Katie Heinrich—Cross Fit Research Lab

Dr. Katie Heinrich joined the Department of Kinesiology in August 2010 as an Assistant Professor of Physical Activity and Public Health. Katie currently teaches courses in physical activity and public health. Katie's husband, Bryan grew up in Salina, KS and is a K-State graduate. He is currently the head Coach and Trainer for K-State CrossFit. Originally from Highland, KS, Katie spent the last four years as an Assistant Professor of Behavioral and Social Sciences in the Department of Public Health Sciences at the University of Hawaii at Manoa. Katie and Bryan are glad to be back in Kansas where they are much closer to their nieces and nephews. Katie is a co-director of the Physical Activity and Public Health Laboratory (PAPH Lab) along with Dr. Elizabeth Fallon and Dr. Andy Kaczynski. Katie's PAPH Lab projects include analysis of the Kansas City built environment and health study and physical activity policy research. Katie is also the Director of the newly established Functional Intensity Training Laboratory (FIT Lab). The FIT Lab mission encompasses education, research and public health:



Education:

Teach evidence-based fitness using a core strength and conditioning program where needs of participants vary by degree and not kind with the goal of providing broad, general, and inclusive fitness.

Teach the 10 general physical skills: cardiovascular/respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, balance, and accuracy.

Teach real life functional movements (e.g., squat, deadlift, and press) in a group setting while providing individual feedback.

Educate kinesiology, and other interested students on CrossFit methods through exposure to the program.

Teach the Theoretical Hierarchy of development reflecting foundational dependence, skill, and physical development.

Research:

Systematically investigate relevant public health physical activity research questions that will contribute to the behavioral and physiological Kinesiology body of knowledge and involve students in the research experience.

Seek appropriate external funding once pilot studies are completed.

Populations of Interest - healthy college students, K-State employees, worksite wellness, PE programs, older adults, cancer survivors, pregnant women, fire fighters, military personnel, overweight and obese individuals, and others.

Public Health:

To make functional fitness available to all regardless of ability level, pre-existing conditions, and financial status; to address rising rates of obesity through physical activity.



Katie Heinrich

New Faculty—Audrey Castlen

Audrey Castlen joined the department of Kinesiology in August 2010 as an instructor. Audrey is married to John Castlen who is a lawyer at Fort Riley. John and Audrey come from the suburbs of Chicago, Illinois. They are enjoying their transition to Manhattan, KS and are expecting their first child at the end of June.

As an instructor Audrey is teaching Exercise Testing and Prescription, and helping to lead the Anatomy and Physiology Labs. She is also the Practicum and Internship Coordinator and the director of the LIFE program. Most recently she has been working with Dr. Katie Heinrich to establish a CrossFit program which is now available Kansas State faculty, staff, and students, as well as community members.

Prior to coming to K-State, Audrey received her B.S. in Kinesiology for Wheaton College, and her M.S. in Exercise Physiology from Northern Illinois University. She has also worked in the corporate fitness realm and as an assistant track and field coach.



Audrey Castlen



Focus on Alumni

From the plains of Kansas to the islands of Hawaii, alumnus Jeaney Garcia (BS 1986) has continued a lifelong journey. Jeaney is in her second year as the Athletic Director at Punahou School in Honolulu, the nation's largest private school with over 4000 students. Jeaney is the director of a program that offers 26 sports with 144 teams at different levels of each sport. Jeaney's journey began when she enrolled at Kansas State University after graduating from Leavenworth High School. Jeaney's cross-country coach at Leavenworth was Cliff Rovelto, current Head Track Coach at Kansas State University. During her first summer at Kansas State, Jeaney was hired by Raydon Robel to be building supervisor for the Recreation Center. Jeaney was either working or working out when she wasn't busy with completing her Bachelor's degree in Exercise Science. During her last year at Kansas State, Jeaney completed an internship at the HealthPlus Wellness Center and the Research Medical Center in Kansas City. Jeaney interned as an Exercise Test technician, getting hands-on experience with Cardiac Rehab patients both out of surgery and in an exercise program. Jeaney headed to Chicago and became the assistant athletic director at Lake Forest Academy in Chicago, serving as dorm mother for 40 boys and coaching cross-country and track. Jeaney began her graduate work at Northern Illinois University before heading West to the Webb schools in Southern California. Jeaney served as Athletic Director and dorm mom for 25 girls at this boarding school. The next stop was at Brentwood as Physical Education director and eventually Athletic Director. During this time, Jeaney began her family and also received her graduate degree in Athletic Administration and Kinesiology. Jeaney also became involved in the Positive Coaching Alliance, based out of Stanford University. The Positive Coaching Alliance is a national program promoting positive behavior at sporting events. Jeaney eventually went back to Brentwood to continue her career. Jeaney came across an opportunity at Punahou School and applied, and is in her second year as Athletic Director. During her time at Kansas State, Jeaney was influenced by a number of people who helped develop her lifelong love of the school. Tony Wilcox served as her advisor, but Jeaney recalls all the faculty being supportive, caring, and involved with the students. Jeaney is still a fan of Kansas State because of how special the department and University made her feel as an undergraduate. Jeaney has continued an unexpected journey similar to many Kinesiology alumni.



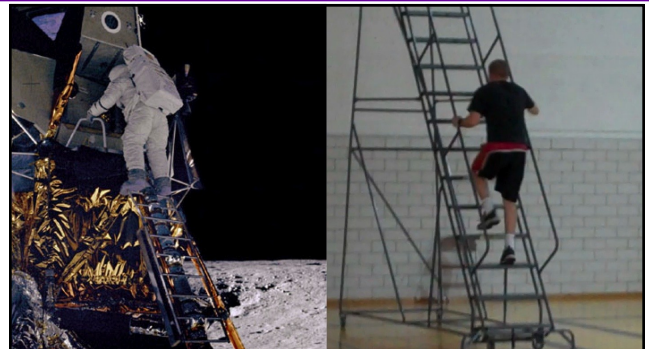
Jeaney Garcia

Photo courtesy of Punahou School

NASA Grant - Dr. Tom Barstow

A team of Kansas State University researchers, headed by Dr. Tom Barstow, professor of kinesiology, was recently awarded a \$1.2 million grant from the National Aeronautics and Space Administration. The team includes Steven Warren, associate professor of electrical and computer engineering; Russell Taylor, an engineer in the Electronics Design Laboratory; and Carl Ade, MS in kinesiology and currently a doctoral student in anatomy & physiology. The group will research what physical characteristics are necessary for an astronaut to perform lunar tasks, and to develop tests to be used during space travel to assess whether a person has enough physical capacity to perform the tasks. "Space travel is inherently dangerous," Barstow said. "The absence of gravity, which we call micro-gravity or zero gravity, causes our bodies to deteriorate in a variety of ways." Microgravity weakens muscles, bones, and the immune system, and it deteriorates the cardiovascular system's ability to regulate blood pressure. This

can affect an astronaut's ability to perform necessary tasks, such as climbing ladders, walking or opening doors. For the safety of the astronauts, NASA wants to make sure they are physically fit enough to perform those tasks during future missions to the moon and even Mars. "What seems like simple tasks as part of their life on the moon or other destinations could be life threatening if the astronauts aren't strong enough to do those tasks," Barstow said. The goal of the research is to develop a simple test or a series of tests that astronauts can use in space to identify their physical conditioning and to determine if they have the capacity to perform lunar tasks. Each year of the three-year project will focus on a different aspect of space travel. In the first year, the researchers will recruit 100 people to undergo an obstacle course of tasks that NASA has identified as simulating lunar activities — including dragging a dummy, climbing up and down ladders, pushing a wheelbarrow of rocks, and running or walking for 6.2 miles. The participants will also perform physical fitness tests, such as running on a treadmill and performing arm exercises. The team also is developing sensors that the participants can wear which will measure muscle activity and the oxygen circulating to them while they perform these tasks. They hope to get a fairly complete description of each person's muscle strength, muscle endurance and cardiovascular endurance, so that with the results of those tests, they can predict the subject's performance during the simulated lunar tasks. For the second year, Warren and Taylor plan to develop a support system that can simulate different levels of gravity. The system will suspend the participant like a marionette with a cable that is attached to a mobile frame. The system can be adjusted to simulate the Moon's gravity or gravity on Mars. The system will be mobile, so that it can move across a terrain while the subject traverses a simulated 'moonscape'. In the third year, researchers plan to observe participants performing the lunar tasks in space suits. Since the moon's gravity is 1/6 that of earth and Mars' gravity is 3/8 of the earth's, it will make some of the tasks easier than performing them on earth. But, Barstow said the pressurized space suits that astronauts wear could make the tasks more difficult, especially tasks that require using hands to grip objects. Thus, the researchers also plan to develop special physical tests just for the arms and forearms. serve as a place to perform the tests sheltered from the weather.





2010 Kinesiology Scholarship Banquet

A perfect evening beckoned; Spring sunshine heralded a beautiful sunset, K-State men stood poised to claim a place in the elite-8 NCAA tournament and Kinesiology faculty, friends, and outstanding students converged on Manhattan’s historic train depot. Out of over 500 Kinesiology undergraduate majors, fourteen were selected by committee to be honored for their superb academics, service to the community and all-round achievements. After a sumptuous banquet, the audience sat in hushed reverence as snippets of the awardees superlative resumes were recalled. Two more awards were presented than last year: The *TM Mickey Evans Outstanding Freshman* award to *Taylor Svec* and the *Outstanding Graduate Award* to *Peter J. Schwagerl*. A full list of honorees appears below.



Of special note, scholarship grantors Ms. Katherine Horridge Smith and Dr. and Mrs. Larry Noble were in attendance to congratulate their winners. They shared stories of their times at K-State and gave a wonderful history and current perspective as to how the Kinesiology Department and K-State have evolved over the years.

As the evening’s festivities wound down out came the big screen and we were all thrilled to see K-State, in double overtime, defeat Xavier (101-98) in Salt Lake to advance to the elite 8 for the first time since 1988 way to go Jacob Pullen!



Award Winners 2010

- | | |
|---|---|
| <p>Compton Award:.....Gracia Matlock, Lauren Jader
 Eva Lyman:.....Cortney Gail Reimer
 Sykes:.....Caroline Nicole Meyer, Hayden W. Franz
 Noble Fitness Promotion Scholarship:..... Kacey Barr, Jaclyn Paolucci
 TM Mickey Evans outstanding freshman:.....Taylor Svec
 Outstanding Graduate Student Award:.....Peter J. Schwagerl</p> | <p>Ito Family:.....Greg ory H. Tanquary
 Barbara Moses:.....Sara Tullis
 Darlene J. Meisner Peniston Memorial Scholarship:Theresa McCollum
 Katherine Horridge Smith Scholarship:.....Jayme Rezac
 Telefund Scholar s:..... Leah Corn, Robert Fields</p> |
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The Kinesiology Faculty, students and our award winners recognize and extend their profound gratitude for the generosity of our wonderful donors - without whom there would be no awards, and, of course, no banquet.





Physical Activity Education and Research Programs Fund Raising

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If you wish to donate to any of the Department of Kinesiology funds (see below) please complete the form above and check where you would like you gift to go to. Please call us at 785-532-6765 or email at kines@ksu.edu if you have any questions.

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The Kinesiology Student—Chris Fox

Chris Fox knew that he wanted to go to Medical School, the decision was how to go about getting there. Chris chose the Kinesiology program based on his interests and the quality of the program. Chris, now in his first year at KU Medical Center, spent time after his graduation as a volunteer in Jacunda, Brazil with the P.R.A.Y. mission. Chris assisted at the medical clinic and during community visits. Chris spent time meeting with and playing with the children in the community. His time in Jacunda helped Chris realize that happiness exists even in places with little material possessions. The memories and experiences will stay with Chris as he begins his professional work. Chris enjoyed his time at Kansas State in the Kinesiology department because of the faculty and training he received. Chris is on his way to becoming an outstanding professional with his training and experiences, and is a great example of the quality of students involved in the Kinesiology program.



Chris Fox and friends at the P.R.A.Y. mission in Jacunda, Brazil