

HHP TODAY



The Department of Health and Human Performance

Fall 2009 | Volume 4 | Issue 3

From the Chair

Greetings! We began the 2009 fall semester in HHP with great momentum as we continue to build upon our solid academic foundation and our expanding research opportunities. This newsletter will provide you with a glimpse of some of these ongoing



department activities and accomplishments that are designed to further our students' success.

Our expanding partnerships take our students from stars on the stage to the stars in the sky. Read about the curriculum with the Houston Ballet we are developing as a component in the strength and conditioning track in the M.Ed. online degree.

Our partnership with NASA continues to grow with the addition of five new master level courses and the new master's of human space exploration sciences this semester.

From coast to coast in the U.S. to China, our new Wii Performance class has captured the interest of more news organizations than we can count or read! Learn about this innovative approach to health and fitness.

We welcome Dr. Thomas Lowder, assistant professor in clinical exercise physiology, to our award-winning faculty—meet him on page 3.

This fall, there are opportunities for you to hear renowned speakers in two of our fall classes; admission is free. Read more about the speakers and schedules in this issue.

We want to update everyone about you, our alumnus, in our newsletter and on our Web site as well. Let me know where you are and what you're doing at clayne2@uh.edu.

*Dr. Charles Layne,
HHP Department Chair*

HHP Brings NASA to UH

In the year that we celebrate the 40th anniversary of man's first landing on the moon, HHP continues the pursuit of equipping students with the knowledge to reach for the stars. Beginning this fall, doctoral students interested in pursuing careers in space life science now have access to five new courses created and taught by scientists from the NASA-Johnson Space Center (JSC).

"The space life science classes will focus on the understanding of how space flight and the microgravity environment impact the physiology of the human body and how space life scientists design experiments to simulate the space flight experience," said Charles Layne, professor and chair of



the HHP department. "We're extremely happy to strengthen our already strong partnership with our friends at NASA and be part of training the next generation of space scientists."

Layne explained that the classes will offer students "direct training in specific space life science topics taught by the very scientists conducting the state-of-the-art research at JSC."

The College of Education and NASA are partners through a Space Act Agreement that allows UH students and faculty and NASA scientists to share information and resources. Currently, there are several HHP students pursuing research or internships with NASA.

Some laboratory experiments will be performed at HHP's Center for Neuromotor and Biomechanics Research (CNBR) in the Texas Medical Center. The CNBR is a human performance laboratory dedicated to better understanding the mechanism of human movement control and where several NASA-JSC studies are currently being conducted.

The new Space Flight Analogs course is a component of the curriculum and each week a different NASA scientist will lecture on their expertise. Please feel free to attend any or all of the Wednesday lectures that interest you. Learn more detail about the lectures on page 3. You can read more about the space life sciences curriculum at <http://tiny.cc/HHPSpaceLifeSciences>.

These classes go hand-in-hand with HHP's new master's of human space exploration sciences program, which is designed to better equip individuals to work in the space industry, with NASA or in the private sector. Dr. William Paloski, director of the CNBR and a 23-year NASA-JSC veteran, says that the program focuses on biomechanics and the impact of space flight on the human body; and it is designed to help graduates avoid the need for years of on-the-job training out in the real world. Learn more about the new master's of human space exploration sciences degree at <http://tiny.cc/MSHSES>.

YOU ARE THE PRIDE

Visit HHP Current Events
at <http://hhp.uh.edu/Currentevents>

FOCUS ON FACULTY

Dr. Norma Olvera



The Robert Wood Johnson Foundation has recently awarded a \$75,000 grant to Dr. Norma E. Olvera as the Principal Investigator for researching strategies targeting the reduction and prevention of obesity among Latino youths.

Dr. Olvera is an associate professor in HHP and executive director of the department's Behavior Opportunities Uniting Nutrition, Counseling and Exercise (BOUNCE) research group. She is also an alumna of UH, where she earned her master's and doctorate in developmental psychology.

The successful BOUNCE programs encompass the focus of Olvera's work, which includes the assessment and enhancement of parental, acculturation, physical, psychological and the environmental factors that are associated with children's eating practices and physical activity levels in minority and immigrant populations.

Her on-going research involves the design, implementation and evaluations of specific family-based, school and community healthy lifestyle interventions created for these populations.

Learn more about her in her own words:

HHP: Will you describe how parenting styles can influence children's eating practices and physical activity levels in a positive way?

Olvera: There is sufficient research indicating that parents are pivotal in the development of their children's healthy eating and activity levels. They are the gatekeepers of what children eat, do and believe. The parents who monitor what their children eat and their activity level, establish routines for healthy mealtimes



Dr. Olvera and BOUNCE participants dance the Zumba.

and activities. Parents who use encouraging words to promote healthy eating and being active, are more likely to have children who develop healthy habits.

HHP: Funding is an integral part of your work. Have you seen any change in competing for funds, especially in the current economy?

Olvera: Of course, federal, foundations and corporate funding have become more limited and consequently, more competitive. However, I believe we have a great challenge ahead of us to reverse the childhood obesity epidemic rate, so I am very confident that more funding will be available to combat this health problem.

HHP: Explain how the goal of healthy living for minority and immigrant families became your career focus.

Olvera: As a graduate student, I became aware of the increasing obesity rate in minority and immigrant populations. With this increase in obesity, there is also an increase in diabetes among these minority populations. Personally, both of my parents and several relatives have diabetes. I have seen first hand, the detrimental effects of it. Diabetes has affected the quality of life of my loved ones. My ultimate goal is to eradicate diabetes by reducing obesity rates in minority children. Teaching children how to eat healthy and be active is the best investment we can make to improve their quality of life and their future.

ALUMNI SPOTLIGHT

Brittany Sanchez



... it or not, human kinetics play an all encompassing role in a skydiver's maneuverability during freefall and parachute descent," according to HHP alumna, Brittany Sanchez. As a skydiver with over 2,600 jumps (300 BASE jumps included) she should know. She is also an American College of Sports Medicine (ACSM) certified personal trainer as well as a group fitness instructor in the Houston area.

In 2005, She earned her bachelor's degree in kinesiology/exercise science with a minor in clinical nutrition and immediately began her career as a personal trainer working in corporate wellness for CenterPoint Energy.

"I had the urge to follow my dreams as a professional parachutist, however, so I flew the coop from the corporate workforce and pursued my passion during the last few years," she said.

Sanchez has jumped in several countries, from cliffs in Norway to the Kuala Lumpur tower in Malaysia, where she gathered some incredible video footage that still airs on cable TV weekly. She explains, "I then 'settled down' to use my freefall, videography skills locally, so I could go back to graduate school at UH-Clear Lake (UHCL) and continue pursuing the dream of human flight."

UHCL specializes in the clinical field aspect of exercise physiology, which supports her areas of interest, but what she is most excited about is UH's involvement with NASA. This summer, she was part of a research experiment with NASA, once again correlating with her fascination of unrestricted human body flight exploration. While pursuing her degree, she is the head personal trainer at Tri On the Run Fitness, specializing in triathlon training as well as general fitness, and is a skydiving videographer at Skydive Spaceland.

Sanchez plans to graduate in the fall of 2010 and says, "I couldn't be more thrilled with the way UH has enhanced my knowledge and skill sets, allowing me to do what I do. My experience with UH and UHCL has encouraged me to continue applying my dreams to innovate and exemplify leadership in all aspects of my life. Go Coogs!"

We want to spotlight our alumni in the newsletter, so let us know what you are doing at <http://hhp.uh.edu/alumni>.

Staying fit is the name of the game for a new department physical activity class this fall, but you will not find these students on the court or on the field. This class makes innovative use of the popular Wii video games to illustrate how to stay healthy and fit.

“We thought this was a good way to reach those students who might not take a weight-training class or a soccer class, but would play an active game like a Wii Fit or Wii Sports,” said Ben Hoffman, instructor for the new Wii Performance class. “These students will still learn about nutrition, health and fitness that will help them out in the long run.”

The games, which allow gamers and avatars to move and act in tandem, will be used to illustrate posture, center of balance, and to improve knowledge of health and fitness. Additionally, the students will learn about basic principles of maintaining a healthy body weight through proper nutrition.



Andy Nguyen is doing the “Palm Tree Pose” on Wii Fit.

Assignments will include tracking the calories they consume and the various activities they engage in. Students from any major are eligible to take the course, which can accommodate up to 20 students per section.

“Our department conducts a host of research into the epidemic of obesity, not only its root causes, but ways to combat it and the diseases related to it,” said Jessica Wheeler, program coordinator. “Using the Wii games can be both fun and an effective tool. We anticipate that many students will want to take this class.”

Several different Wii games are used: Wii Fit, EA Sports Active, Wii Sports Resort and Wii Dance Dance Revolution.

Students will receive one credit hour for the class, and will be tested on health and nutrition information. “We’re hoping that this class opens students’ eyes to what they’re eating and how active they are and should be,” Hoffman said.

WELCOME

New Faculty

Free Lecture Series



The HHP faculty and staff extend a warm welcome to our new faculty member, Dr. Thomas W. Lowder, assistant professor in clinical exercise physiology.

Before coming to UH, he earned both his master’s and his doctoral degree in kinesiology from the University of Illinois and served as a post-doc at the University of Alabama-Birmingham.

A focus of Lowder’s research examines how exercise training can constructively impact the immune system. Currently, his work centers on the role of Regulatory T cells (Tregs) and the part they play in the

aging immune system, as well as their role in diseases of the lung, such as asthma and influenza virus infection.

In addition, strength and conditioning is another area of focus, which Lowder says “is a passion of mine, both as a researcher and as a competitor. I love competitive strength sports and I am deeply interested in learning how to maintain and improve musculoskeletal strength and fitness across the lifespan.” He also has an interest in aging and how strength and resistance training can drastically improve the quality of life for senior adults.

“Dr. Lowder’s work will nicely intersect with our existing laboratory and applied research concentrations,” Dr. Layne, HHP chair, said.

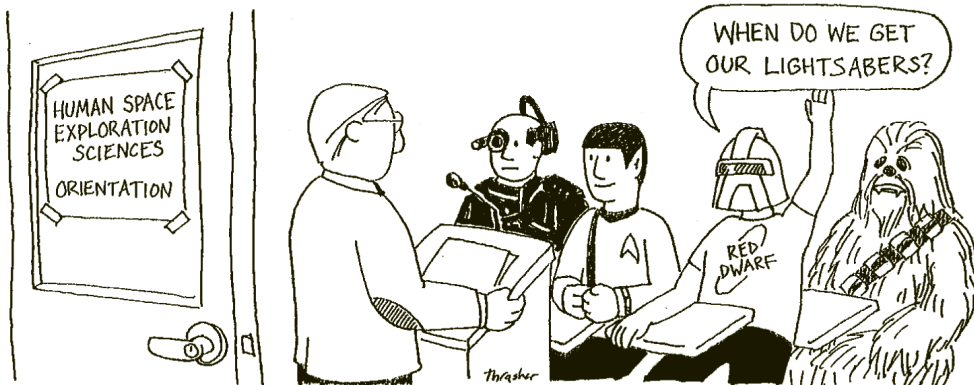
For the full schedule of lectures, visit <http://tiny.cc/HHPlectures09>.

Disparities in Health

The Disparities in Health in America: Working Toward Social Justice is a course HHP is hosting that offers two lectures Tuesdays 5:30 p.m.-8:30 p.m. in the KIVA (Rm. 101) in Farish Hall. Renowned guest lecturers address the social and societal factors that are fundamental in creating disparities in health. The focus will be on the formulation of public objectives to reduce and ultimately eliminate health disparities.

NASA Scientists

The Space Flight Analogs course is a component of the space life sciences curriculum. Each week a different NASA scientist will lecture on their expertise concerning multiple analogs like virtual reality, head-down tilt bed rest, underwater environments and the extreme isolation of the Arctic and Antarctic. Please feel free to attend any or all the lectures that interest you on Wednesdays from 2:30 p.m.-5:30 p.m. in Melcher Gym 127. Read more about the space life sciences curriculum at <http://tiny.cc/HHPspaceLifeSciences>.



Contributed by Dr. Adam Thrasher, assistant professor of biomedical engineering

Visit our exciting research projects at <http://hhp.uh.edu/grants>



UNDERGRAD

Internship

Beginning this fall, incoming students pursuing a bachelor of science in sport administration are required to complete an internship when they are within 12 hours of graduation. For the capstone of the program, students will complete 600 hours of practical experience in settings such as professional sports, athletic administration, fitness management, recreation management, sports marketing, event management, facility management and public relations.

Previously, the internship was credited as an advanced elective, and recommended to be completed within the last three semesters. However, Dr. Rey Treviño, the sport administration internship coordinator, emphasized that practical and professional experience is becoming more important in order to compete in the job market.

Treviño said, "Experiential learning is part of the criteria for the new accrediting agency for sport management. There are some organizations that make it known that students with experience are more desirable as candidates for employment." He further added, "The internship will provide our HHP students with that experience and the competitive edge they need after they graduate."

Students will enroll in a seminar course that prepares them for their final semester as an intern as well as seeking future employment. Dr. Treviño explains, "The sport administration internship will be the culminating experience. During the student's second-to-last semester they should complete their coursework including the sport administration seminar, which will focus on resume writing, preparing for interviews, as well as other skills that will increase the chance for the student to secure an interview and job."

BALLET & HHP

Partnership

A partnership between the Houston Ballet and HHP will develop curriculum for the Movement Arts course, which is a component of the strength and conditioning track in the master's of education in physical education online degree. An element of the course will focus on the unique techniques, nutrition and the rehabilitation of ballet dancers; while other proposed movement art focuses will include gymnastics, competitive diving, ice-skating and possibly stunt performers.



A series of instructional videos of a ballet dancer explaining a movement or training technique, followed by several demonstrations of the activity, may be taped from different angles to give the student an overall view of the movement and better understanding of a specific technique. Additional videos may include a physician's explanation of rehabilitation or nutrition necessary to recuperate/maintain the health of a dancer.

Course materials, such as student learning activities, assignments, suggested reading and exams will explore and give the unique understanding of ballet movements. The National Center for Human Performance (NCHP) in the Texas Medical Center may also be used for more in-depth analysis of movements/techniques by scientific movement analysis equipment to obtain additional information and insight.