# ORU

### PROCLAIMING HANDIWORK

Academic News for Science and Engineering

September 2011

## Health, Physical Education, and Recreation Department

The Department of HPER received new equipment for the Human Performance Lab. A new computerized cycle ergometer was added to the computerized treadmill and blood pressure system. In addition, the hydrostatic weighing tank was updated with a new telemetry system which integrates a new Windows interface. The HPER Club ended the 2011 academic year with a trip to visit the Bodies, The Exhibition. Twenty-five majors attended the exhibition, along with several faculty members.



### **Engineering, Computer Science, Physics & Math Department**

#### Dr. Dimiceli Develops New Formula to Help Measure Heat



In October, Dr. Dimiceli will be presenting his research from his sabbatical at the World Congress on Engineering and Computer Science at UC Berkley. Dr. Dimiceli was interviewed on News on 6. The story about his equation to calculate the Black Globe Temperature for calculation of the WBGT index was aired on July 5th <a href="http://www.oru.edu/news/oru\_news/20110707">http://www.oru.edu/news/oru\_news/20110707</a> oru\_professor\_heat.php.

#### Dr. Ma Has Published Two Papers and Submitted Two Papers with Students as Co-Authors

Xiaomin Ma, "On the Reliability and Performance of Real-Time One-Hop Broadcast MANETs", *ACM/Baltzer Wireless Networks*, 17(5): 1323-1337, May 2011. DOI: 10.1007/s11276-011-0351-x

Xiaomin Ma, H. Refai, Analytical Model for Broadcast Packet Reception Rates in Two-Dimensional MANETs, *IEEE International Conference on Communications* (*ICC*'11), Japan, June 2011

Xiaomin Ma, Daryl Charron, and Matthew Wilson, Broadcast reception ratio in one-dimensional VANETs with channel fading, IEEE/IFIP Wireless Days Conference, Niagara Falls, Canada, Oct. 2011.

Xianbo Chen, Jeyan Oorjitham, Xiaomin Ma, On the two-dimensional coverage area in broadcast ad hoc networks, IEEE/IFIP Wireless Days Conference, Niagara Falls, Canada, Oct. 2011.

## **Behavioral Sciences Department**



Angela Meter and Sara Bird

The Behavioral Sciences Department is excited to welcome back all of our students for a new year. The Psi Chi Rho and AMF grief support groups have already had their first meetings of the semester with great participation. Angela Meter, President of AMF, and Sara Bird, President of Psi Chi Rho have posted the semesters meeting schedules in the department and on Facebook. All students interested in Psychology topics are invited to join us for Psi Chi Rho meetings. It is a great forum for

information on research and careers in this area. AMF is a very special support group for any and every student on

campus dealing with issues in grief. It is a free and welcoming place to find help and support in times of loss. They meet every other Tuesday, at 8:00 pm, in the student lounge on the second floor of the GC. Stay in touch with us and join the fun this semester.



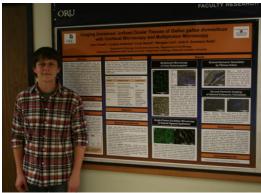
## **Biology & Chemistry Department**



Thanks to the efforts of ORU Operations the department's office and the adjacent chair's office were expanded and renovated to handle the increasing flow of students and faculty. Alumni funds allowed us to buy new desks and furniture making these areas more spacious, efficient, and of course, more pleasant for all of us!

## Sophomore Biology Major John Powell's summer research program

Several biology and chemistry students were involved in summer research programs. Zoey Miranda (Sophomore BIO) and Christine Bogandoff (Junior BIO) participated in the first summer research program of TABERC (Tulsa Area Bioscience and Education Research Consortium) with mentors from Oklahoma State University-Health Sciences Center and University of Tulsa, respectively. John Powell (Junior BIO) participated in the S.U.R.E. (Summer Undergraduate Research Experience) program at the University of Oklahoma Health Sciences Center. Also, Caitlin



Legler (Senior CHE) conducted summer research at Oklahoma State University-Health Sciences Center, Michael Dru Harness (Senior CHE) worked on a research project with Roads Science in Tulsa, Cordelia Staab (Senior BIO) participated in a rural medicine research project as part of the University of Kansas Medical School Rural Health program, and Danielle LaVigne (Senior BIO) completed the Pritzker School of Medicine Experience in Research program; a pipeline program for the University of Chicago Medical School.