



**Empowering  
Connecting  
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**MAY 2014 NEWSLETTER**

**INSIDE THIS ISSUE:**

# Ogden College News

## PRE-HEALTH STUDENTS TOUR OWENSBORO HEALTH CENTER

Owensboro Health hosted a group of pre-med students from WKU on Friday, April 11th. Philip Patterson, hospital President and CEO, spoke with the students about Owensboro Health, the Owensboro community and specific healthcare needs of the region. Students were able to see firsthand the OR, Hospitality Suites, re-hab gym and simulator, pharmacy, lab/pathology, radiology department and ER. In addition, they were able to see unique, cutting edge technology such as the da Vinci robot and ZeroG rehabilitation machine.

Stated Mr. Patterson, "The genuine excitement from this group of students was refreshing to see. To experience these students seeing our amazing hospital for the first time was a reminder of how lucky we are to work here. We ended the tour with a Q&A session led by Dr. Khanna and Dr. Scherm. The group enjoyed this session immensely and had some great questions for the doctors."

To see additional coverage of the pre-med visit, view the following link:  
<http://mms.tveyes.comTranscript.aspStationID=4550&DateTime=4/11/2014%>

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**Congratulations to the following  
Ogden Faculty for receiving  
University Faculty Awards**

*Summer Bateiha, Mathematics Department  
Teaching Award*

*Bryan Reaka, Architectural & Manufacturing Sciences Department  
Service Award*

*Rezaul Mahmood, Geography & Geology Department  
Research Award*



### OGDEN FIRES UP CHILDREN FOR SCIENCE AT "TAKE OUR DAUGHTERS AND SONS TO WORK DAY"



Alicia Pesterfield (left) proved Chemistry can be quite exciting as she amazed a crowd of students with her chemical magic show. Her "Be A Mad Scientist" demonstration was all part of WKU's annual

"Take Our Daughters And Sons To Work Day." The children of WKU employees spent the day on campus exploring a variety of professions through hands-on activities, demonstrations and simulations.

Ogden College was well represented. Students could attend a robotics and space session in the AMS Department and Hardin Planetarium, learn about combustion and organic compounds at the Institute for Combustion Science (below), join the Ag Department for a tour of the WKU farm, explore Crumps Cave with the Geography & Geology Department or learn cool math tricks with SKYTEach.



Dr. Quentin Lineberry

AMS Department Chair Dr. Greg Arbuckle shows the children the FESTO MPS manufacturing cell in the Senator Mitch McConnell Advanced Manufacturing & Robotics Laboratory



### ALPHA EPSILON DELTA HONOR SOCIETY INDUCTS THIRTEEN NEW MEMBERS

WKU's chapter of Alpha Epsilon Delta (AED) inducted 13 new members on April 14.

Alpha Epsilon Delta is the National Health Pre-professional Honor Society dedicated to the encouragement and recognition of excellence in pre-professional health scholarship, including medicine, dentistry, veterinary medicine, physical therapy and others. The Kentucky Gamma Chapter at WKU was established in 1968 and has inducted more than 1,000 members over its 46 years on The Hill.

The spring semester inductees are: Callie Allison of Alvaton; Lauren Badstibner of Bowling Green; Kelsey Carter of Sacramento; Kaley Coffey of Owensboro; Riley Coots of Bardstown; Jamie Doctrow of Louisville; Courtney Hamilton of Owensboro; Alyssa Huff of Morganfield; Brandon Mudd of Bardstown; Elizabeth Oates of Central City; Kenneth Ruby of Somerset; David Sams of Somerset; and Joseph Wilson of Tompkinsville.

## Student Receives Fulbright, DAAD Grants



WKU biochemistry student Jonathan David Hendrie received two grants to continue research in Germany to develop a new expert model system for laparoscopic training.

Hendrie, son of David and Lynne Hendrie of Elizabethtown, will graduate May 17 from WKU. He will use a Fulbright Research Grant to enroll in intensive German language courses for two months beginning in August and then conduct research in Heidelberg for 10 months.

A student in the Honors College at WKU, he was also awarded a DAAD (German Academic Exchange Service) Study Grant from the German Research Foundation for the same research.

The Fulbright U.S. Student Program is the U.S.'s premier international exchange program that offers more than 1,500 fellowships annually to

graduating college seniors, graduate students and young professionals for a year of research, English teaching or study abroad.

Hendrie will build on research he started while participating in the DAAD Research Internship in Science and Engineering (RISE) Program. During the summer of 2013, he collaborated with a computer scientist from Karlsruhe Institute of Technology to develop training software, and recruited expert laparoscopic surgeons to complete full operations on the Heidelberg Laparoscopic Intervention Operating Simulator (HELIOS) phantom body. The simulator records the surgeon's movements that can be used to establish parameters such as economy of movement and efficiency.

"As a part of my Fulbright Research Grant, I will work with laparoscopists to establish these parameters and create expert models of the instruments' paths and movements," he said. "Furthermore, we will compare this training system to previously validated training modalities and curricula."

**WKU STUDENT AND RECENT GRADUATES HONORED BY NSF FELLOWSHIP**

**A** current WKU student and four recent graduates were honored by the National Science Foundation Graduate Research Fellowship Program.

**Sarah Schrader** of **Bowling Green**, who is graduating in May, and 2013 graduates **Elaine Flynn** of **De Mossville** and **Michael Powers** of **Bowling Green**, were selected for the prestigious fellowship. Graduates **Brittany Morgan** (2012) of **Franklin** and **Jordan Olberding** (2013) of **Turner, Maine**, received honorable mention.

The NSF Graduate Research Fellowship Program (GRFP) helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity. The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited United States institutions.

As the oldest graduate fellowship of its kind, the GRFP has a long history of selecting recipients who achieve high levels of success in their future academic and professional careers. The reputation of the GRFP follows recipients and often helps them become life-long leaders who contribute significantly to both scientific innovation and teaching. Past fellows include numerous Nobel Prize winners. Fellows share in the prestige and opportunities that become available when they are selected.

Fellows benefit from a three-year annual stipend of \$32,000 along with a \$12,000 cost of education allowance for tuition and fees, opportunities for international research and professional development, and the freedom to conduct their own research at any accredited U.S. institution of graduate education they choose.



**Schrader**, (pictured at left) who is majoring in biology, chemistry and Mandarin Chinese, will be pursuing graduate studies in the fall. While at WKU, she has been a part of the Honors College at WKU and Chinese Flagship Program. She previously attended the Gatton Academy of Mathematics and Science and earned a Barry M. Goldwater Scholarship, the Pearson Prize for Higher Education, a Teach and Learn in Korea (TaLK) Scholarship and a Critical Language Scholarship. Schrader was WKU's first finalist for the prestigious Rhodes, Marshall and Gates-Cambridge scholarships, and she

was a finalist for the Harry S. Truman Scholarship in 2013. She has conducted research at WKU through the Howard Hughes Medical Institute-sponsored Genome Discovery and Exploration Program and at the Chinese Academy of Sciences Shanghai Institute of Biochemistry and Cellular Biology, Princeton University and New York University.

**Flynn**, an Honors College graduate with bachelor's degrees in geology and chemistry, is completing a doctoral degree in geochemistry at Washington University in St. Louis, Mo. While at WKU, she presented her research at five scientific conferences, wrote seven successful grants and won an NSF Research Experience for Undergraduates (REU) Fellowship to work in the Bahamas.

**Powers**, who earned a bachelor's degree in geology, is a graduate student in the Boone Pickens School of Geology at Oklahoma State University. As an undergraduate, Powers conducted research at the National Synchrotron Light Source at Brookhaven National Laboratory and won an NSF REU Fellowship to study meteorites at the American Museum of National History in New York City.

**Morgan** earned a bachelor's degree in biochemistry and is now a graduate student at Duke University. She is a graduate of the Honors College at WKU and earned Scholar of the College honors for the Ogden College of Science and Engineering. As a junior, she was awarded a Barry M. Goldwater Scholarship. She plans to conduct research in molecular toxicology and teach at the university level.

**Olberding** earned bachelor's degrees in investigative biotechnology and biochemistry and is a graduate student at Yale University where she is in the PhD. program in biological and biomedical sciences. She is a graduate of the Honors College at WKU, was named Outstanding Biology Student in 2013 and conducted research on how cancer cells grow and migrate using fruit flies.

**About the Office of Scholar Development:** The Office of Scholar Development is committed to helping WKU students in all majors and degree programs develop the vision, experience and skills to be independent, engaged scholars. OSD welcomes the opportunity to work with students interested in nationally competitive scholarships.

## “WHY SHARKS ATTACK” INCLUDES EXPERTISE OF WKU PROFESSORS

**W**hy *Sharks Attack*, an episode of NOVA that premieres next month on public television, will include video footage shot last summer at WKU.

A production crew that included Adam Geiger, Rachael Kelly and John Hawkes visited the WKU labs of biology faculty member Dr. Steve Huskey and engineering faculty member Dr. Chris Byrne last July and filmed them testing the bite force of shark teeth on a surfboard, among other things.

“Dr. Byrne’s materials testing equipment was perfect for punching shark’s teeth into meat, bones and surfboards,” Dr. Huskey said of the tests that included great white, bull and tiger shark teeth. “He and I found some interesting results about the bite force and tooth pressure needed to inflict severe damage.”

“I think one of the most surprising results from the testing was the relative ease with which a shark tooth can penetrate a material,” Dr. Byrne said. “A surfboard is covered with a layer of high strength composite material that acts like a protective shell. The teeth penetrated with only a few pounds of biting force, and this is due to the extreme efficiency of the tooth design. They are so sharp that bite pressures at the tooth tip break fibers with strengths above 100,000 pounds per square inch, enough to glide through the protective shell and readily cut out big bites.”

*Why Sharks Attack*, which debuts May 7, looks at deadly shark attacks in Australia and a growing number of great white sharks appearing near Cape Cod, Mass., not far from where Steven Spielberg filmed *Jaws*. To separate fact from fiction, NOVA teamed up with leading shark experts in Australia and the United States, as well as bite expert, Dr. Huskey, to discover the science behind the great white’s hunting instincts and killing prowess.

“The great white is the most charismatic ocean predator we’ve got,” Geiger said.

Sharks have evolved into one of nature’s top predators and part of their behavior is to assess what they’re going to attack. “We’re really interested in the science,” Geiger said. “We’re looking at very interesting aspects of shark behavior. The lab here at WKU was perfect to measure the force needed to penetrate the surfboard.”

Sharks can “read” their teeth to determine if what they’ve

bitten into is really something they want to eat, such as a surfboard or a sea lion, Dr. Huskey said. “Sharks have had over 400 million years of evolution to fine-tune their ability to detect what’s edible and what’s not,” he said. “If they decide to commit to a kill, it’s all but over. But they also have an uncanny ability to reject prey that they find unpalatable. Lucky for us, most sharks think we taste bad.”

Dr. Byrne said it was interesting to see how teeth from different sharks gave different results. “As example, the serrated tooth was seen to saw through the tough fibrous shell of the surfboard, while non-serrated teeth slipped through without that micro-sawing action. Each tooth seemed efficient in a different way,” he said.

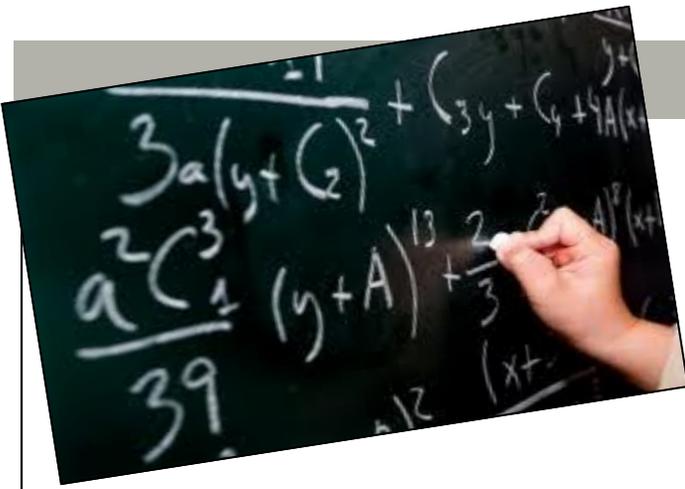
Last summer’s visit to WKU was part of a five-week shooting schedule that included stops in Australia and Cape Cod. So how did the crew end up in Bowling Green?

Geiger, a director/producer for *SeaLight Pictures*, filmed Dr. Huskey in 2010 while working on a National Geographic Channel production of *Sea Strikers* that featured Dr. Huskey’s research on the feeding behaviors of high-velocity, ocean fish. Geiger knew about Dr. Huskey’s expertise on fish jaws and bite mechanics and invited him to be a part of the *Why Sharks Attack* production.

The show is aimed at debunking a number of the myths about shark attacks in hopes of creating a sense of reverer for sharks. Dr. Huskey hopes the public will do their part in protecting the ocean’s top predator.

*Why Sharks Attack* will air on KET at 8 p.m. CT May 7 and on WKU PBS at 8 p.m. and 11 p.m. CT on June 10.





## Mathematics

### WKU NOMINEES RECOGNIZED BY GOLDWATER SCHOLARSHIP PROGRAM

The following students have been recognized by the Barry M. Goldwater Scholarship and Excellence in Education Program.

John Cliburn of Cloverport is studying Math and worked with Dr. Lan Nguyen in the Math Department.

Nitin Krishna of Corbin is studying both Math and Computer Science and worked with Dr. Richard Schugart in the Math Department.

One of the winners listed as attending another university, Sam Saarinen, actually did most of the research that helped him earn the scholarship here at WKU while he was a Gatton Academy student. Sam worked with Dr. Claus Ernst in the Math Department.

WKU is proud of our students for being recognized with this most prestigious honor.

*Congratulations to Dr. Summer Bateiha in the Mathematics Department for winning the University Faculty Award for Teaching.*



## Psychological Sciences

*Continued on page 12*



### CONGRATULATIONS TO STEPHEN O'CONNOR, Ph.D.

Dr. O'Connor's Young Investigator grant proposal was recommended and approved for funding by the Scientific Council of the American Foundation for Suicide Prevention.

Dr. O'Connor stated that the study is a collaboration with Vanderbilt University Medical Center conducting a pilot study for a brief behavioral intervention delivered to suicide attempt survivors hospitalized on a medical/surgical floor. "We are trying to take advantage of the sentinel event effect (i.e., teachable moment) where folks might be more open to engaging in a therapeutic interaction shortly after the cueing event (e.g., suicide attempt). Emergency departments are too rushed and inpatient psychiatry is difficult because folks are labeled as mentally ill and surrounded by other sick patients and often revert back to ineffective ways of coping. When folks are treated on medical/surgical floors they have sustained significant physical damage, so the negative consequences of the event are more palpable as well," said Dr. O'Connor.

To review an article regarding Dr. O'Connor's work, visit the following link:

<http://www.clinicalpsychiatrynews.com/topics/anxiety-disorders/single-article-page/automated-screening-system-might-detect-suicidality-after-trauma/c0f262e0065250228bf215cae30a82b9.html>

**ANNOUNCING NEW DEGREE PROGRAM:  
BACHELOR OF SCIENCE IN  
PSYCHOLOGICAL SCIENCE**

**Are you interested in the scientific study of mind and behavior?**

This BS Offers Concentrations In:

Applied Psychological Science

Biobehavioral Psychology

Clinical Psychological Science

Cognitive Psychology

Developmental Science

Social Psychology

## Agriculture

### MARTIN STONE AWARDED GARDEN CLUB OF KY ENRICHMENT AWARD

This is the highest award a non-club member can receive statewide. The recipient must be an individual or organization making a meritorious contribution in our Commonwealth by furthering, in an outstanding manner, one or more objectives of GCKY.

Martin Stone, Department of Agriculture at WKU, was awarded this honor at the Garden Club of Kentucky's Annual Meeting on April 9, 2014 in London, Ky. He was recognized for his efforts in organizing Kentucky's first landscape school and seeing it succeed during a two year cycle. He was a presenter at each of the four schools held over the past two years where it was held on WKU's campus or nearby.



### SPRING CONTAINER GARDEN WORKSHOP

WKU Lifelong Learning and the Floral Design Center presented the Spring Container Garden Class on Saturday, April 26th. The class was held at the WKU Farm Greenhouse and was led by Roger Dennis from WKU Floral. Students were on hand to assist participants with loading and unloading. Flowers were abundant and the soil was free. Attendees could bring as many containers as they liked and fill with soil and flowers valued up to the \$55, the cost of the registration fee.



### AG STUDENTS STUDY IN ECUADOR

During spring break from coursework, eleven WKU students and two professors headed south to Ecuador to study the rural development issues and agricultural production that occurs in that country. Located right on the equator, Ecuador has a diverse population and varied microclimates throughout the Andes and in to the upper Amazon River basin. Students toured the flower production facilities of Esmeralda, Inc., a livestock market, flower markets, farmers markets and farms for potatoes, tree tomatoes, dairy and beef. They visited with renowned Ecuadorian artist Enrique Alvarez, Quito cultural historian Wilson Ruiz, and entho-botanist Miguel Castanel. Talking with local educational, political and business professionals, as well as with the general workforce, gave the students significant exposure to global food and development issues.

Pictured above on the Cobo farm in Pillaro, Ecuador are Martin Cobo, farmer and dairyman hosting the group; students Dennis Williams, Travis Combs, Tori Christensen, Jody Dahmer, Austin Cole, Lauren Harris, Katherine Settle, Jessie Key, Savannah Claywell; Dr. Linda Brown Gonzales, Leader from the Department of Agriculture; Dr. Melissa Stewart, Leader from the Department of Modern Languages; Dr. Jose Martinez, Veterinarian and host in Ambato and Puyo; and Ricardo Cobo, farmer and dairyman host in Pillaro. The students pictured in back and front are Nicholas Christman and Lydia Richardson.

Dr. David Coffey, who died in March, was responsible for exposing hundreds of students to Ecuador. Dr. Gonzales will carry on the tradition in his honor.



*Students from Dr. Woosley's Sports Turf Management class paint a red towel on the golf course at WKU Farm.*

## Engineering



**W**KU civil engineering students placed first overall in the Ohio Valley Student Conference March 26-29 at Carnegie Mellon University in Pittsburgh. WKU students finished first in concrete horseshoe, concrete softball bat, balsa wood bridge, surveying and civil site design competitions.

In the steel bridge competition, WKU finished third. The WKU steel bridge team will compete May 23-24 in the National Student Steel Bridge Competition at the University of Akron. The team placed first in construction speed and third in stiffness, structural efficiency, economy and display.

“The students worked hard and put a valiant effort in during the final weeks leading up to the competition, and this made all the difference,” said Dr. Shane Palmquist, steel bridge team advisor.

Steel bridge team members include team co-captains **Jacob Martin** of Shelbyville and **John Jacoby** of Paris; **Carson Joyce** and **Chris Sivley**, both of Hopkinsville; **Nicholas Miller** of Bowling Green; **Sean Danehy** of Libertyville, Ill.; **Matt Groves** of Greenville; and **Noufissa Chbihi** of North Haven, Conn.

In the concrete canoe competition, WKU finished second. The team placed first on final product and third on the canoe report and presentation. In canoe races, WKU finished first in men’s sprint, fourth in women’s sprint and second in coed sprint.

Professor Matthew Dettman, concrete canoe team advisor, said, “The Ohio Valley Region has become extremely competitive in the last few years and this team did an outstanding job. They finished first in final product which means they built an outstanding canoe. With a little improvement in the other areas of the competition we have a great shot at getting back on top next year.”

Concrete canoe team members include team co-captains **Tyler Sheffield** of Dry Ridge and **Michael Simpson** of Park City; **Garett Owen** and **Miles Puckett**, both of Livermore; **Jeremiah Baxley** of Hartford; **Megan Jones** of Glasgow; **Bradley New** of Monticello; **Brett Rice** of Lexington; **Colby Osborne** of Brentwood, Tenn.; **Caitlin Young** of Fordsville; **Jordan Keeney** of

Somerset; **Justin Jernigan** of Portland, Tenn.; **Trevor King** of Derby, Ind.; **Alex Sutton** of Mount Sterling; **David Garvin** of Lewisport; and **Danny Hughes** of Bowling Green.

In the concrete horseshoe competition, WKU finished first. Team members include **Kent Jones** of Somerset and **Lucas Guinn** of Monticello. The competition was to construct a reinforced concrete horseshoe and play a game of horseshoes. Horseshoe aesthetics were also part of the competition.

In the concrete softball bat competition, WKU finished first. Team members include **Ben Mullins** of Waynesburg, **Justin Hopkins** of Russellville and **Dylan Jones** of Berea. The competition was to fabricate a lightweight reinforced concrete bat capable of hitting a ball the longest distance while still remaining intact.

In the balsa wood bridge competition, WKU’s team of **Raymond Van Zee** of Russellville and **Blake Adams** of Monticello finished first for the second year in a row. Dr. Warren Campbell, team advisor, said: “In a field of 12 bridges, the closest competitor’s bridge held 20 pounds while WKU’s bridge held 60.4 pounds. It was epic! Our guys were amazing.”

In the surveying competition, WKU finished first. Team members include **Matt Groves** of Greenville, **Kent Jones** of Somerset, **Dylan Jones** of Berea, **Kyle Parks** of Bloomfield, **Ben Mullins** of Waynesburg and **Justin Hopkins** of Russellville.

In the civil site design competition, WKU’s **Kyle Parks** of Bloomfield finished first. The competition was to create a design for an interstate rest stop in AutoCAD according to the specifications provided which included a change order to be incorporated on the day of the competition. Judging was based on quality of design, accuracy and detail, speed, and the process used to create the layout and drawing.

In the environmental engineering competition, **Michael Pickett** of Radcliff participated. The competition was to create a filtration device to remove contaminants from a water sample. The teams were judged on the design poster, cost, construction speed, design, and effluent water quality.

In the technical paper competition, **Brett Rice** of Lexington participated. The competition involved writing a paper and presenting a civil engineering topic. The topic this year was civil engineers’ responsibilities during a natural disaster.

Congratulations to all for these outstanding results!

## Geography & Geology



### WKU PROFESSOR PART OF COMMITTEE OVERSEEING U.S. CLIMATE REPORT

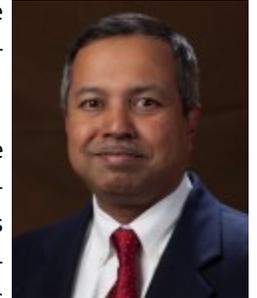
**D**r. Mahmood, associate director of the Kentucky Climate Center and the Kentucky Mesonet, was one of about 60 members of the National Climate Assessment Development and Advisory Committee, which oversaw the 3½-year process that resulted in the largest, most comprehensive U.S.-focused climate change report ever produced.

This National Climate Assessment summarizes the impacts of climate change on the United States, now and in the future, and concludes that the evidence of human-induced climate change continues to strengthen and that impacts are increasing across the country.

“The report is important regardless of people’s views on climate change and global warming,” Dr. Mahmood said. “We should not be doing business as usual whether you believe the climate is changing or not, because based on current science, our climate has been changing,” he said. “More importantly, even if you say it is not happening, we must take measures to protect ourselves from floods, drought, severe weather and heat because we will have those no matter what. We must

have policies, plans and infrastructure in place to protect ourselves from potential climate change impacts.”

Dr. Mahmood was named to the NCADAC in 2011. The committee oversaw a team of more than 300 scientists and experts who developed the National Climate Assessment, which was written by more than 240 authors.



*Dr. Rezaul Mahmood*

“It was a great learning experience,” Dr. Mahmood said of his work on the committee. “It was a very engaged process and the group did a very good job.”

The report was extensively reviewed by the public and experts, including federal agencies and a panel of the National Academy of Sciences.

The report includes analyses of impacts on seven sectors – human health, water, energy, transportation, agriculture, forests, and ecosystems – and the interactions among sectors at the national level.

Dr. Mahmood said Kentucky fares well in the report but noted that the state is likely to face hotter and drier summers. However, he added, weather and climate trends don’t follow state borders. “If things happen in the Midwest or the Southeast, it will impact Kentucky,” Dr. Mahmood said. “We are not isolated.”

### DR. JOHN ALL RECOVERING FROM SERIOUS INJURIES AFTER FALL IN HIMALAYAS



Dr. All survived a 70-foot fall into a crevasse on Mt. Himlung in the Annapurna mountain range. He will now face surgery in the United States to repair his right arm which was broken during the incident. Doctors advised him to undergo the surgery to ensure full use of his arm in the future.

Dr. All was rescued by Global Rescue on May 19th. During the fall he also suffered broken ribs and a shoulder dislocation along with internal bleeding. It took him several hours to crawl out of the hole of the crevasse due to his injuries and three more hours to reach his tent to call for help. Dr. All states he is happy to be alive and thanks his global friends and family for their support.

Dr. All and his team were on a mission to collect ice and snow samples to study the level of pollution and rate of glaciers melting in the Himalayas. His next adventure is a climbing trip scheduled for June in Peru. He scaled Mt. Everest in 2010.

## Physics & Astronomy

### WKU PHYSICS OLYMPICS DRAWS 16 TEAMS FROM SIX HIGH SCHOOLS

On February 22, a team of four students from Bowling Green High School earned themselves \$600 scholarships to attend WKU by besting the competition in the Western Kentucky Physics Olympics. Greenwood High School's team earned \$200 scholarships as the runner-up team.

The half-day competition consisted of a pentathlon of challenging problem-solving activities that rewarded teamwork, communication and creativity. This year's theme was FLIGHT.

*Photo above left: Two teams of students from Bowling Green High School prepare to compete with their "balloon rocket racers" in the 2014 Physics Olympics, with Dr. Jason Boyles and WKU physics major Keiti Rueter ready to judge its distance down the inclined string.*



### NEWS AND NOTES

The Department of Physics and Astronomy is in the process of developing a collaborative program with the American University of Bosnia Herzegovina, AUBiH, specializing in the area of Cyber Security, Cyber Threats and SCADA protection. Working with the International Office and Honors College through Dr. Craig Cobane a group of faculty from Physics and Astronomy, Computer Science, Psychological Sciences, Sociology and Computer Information Sciences are preparing to work on faculty and student exchange channels and on a focused study abroad program.

On May 3, 2014 the astronomers from WKU met at the first statewide meeting to provide a focused direction and vision for the astronomical community in KY. A number of students and Gatton scholars from WKU joined Drs. Carini, Gelderman, Boyles, McGruder, Laney, Bohuski, Gibson, Lee and Emslie to prepare for the meeting. Several presentations included basic research results from the WKU Bell Observatory and WKU's consortium using the Robotically Controlled Telescope at Kitt Peak National Observatory in Arizona.

Freshman Physics major and Honors student Carson Price, who worked with Prof. Sanju Gupta, won Poster Award in the Student Research Conference for the work entitled "**Conducting Polymer Nanostructures and Nanocomposites with Carbon Nanotubes: Hierarchical Assembly via Molecular Electrochemistry and Property Characterization.**" Congratulations, Carson, for winning this award!

*Night Sky Stories Over a Summer Campfire*, the summer constellation show at WKU's Hardin Planetarium, opened on May 25. Show times are 7 p.m. Tuesday and Thursday and 2 p.m. Sunday through July 10. Summer, more than any other season of the year, is a time for stargazing. Whether you are lucky enough to observe from a rural setting or find yourself looking skyward from a brightly lit town, this show is designed to help you become familiar with the star patterns visible in the summer evenings. The show is free and for all ages.

### "Chinese Discoveries That Shaped Our World"

is the theme for this summer's Science Curiosity Investigation camp at the Hardin Planetarium. The planetarium is partnering with The Confucius Institute to provide this unique learning opportunity.

Full day camp July 7—11  
8:00 AM to 4:30 PM

Open to students in grades 3—6  
Deadline to register is June 13  
Space is limited!

\$195 fee includes project materials & snacks  
Campers bring their own lunch

Call 270.745.4044 for more details or  
go online at: <http://wku.edu/hardinplanetarium/>



Explore some of the important discoveries that originated in ancient China:

- Make paper and then write calligraphy on it
- Design and construct kites & wind chimes
- Study Chinese musical scales and instruments
- Compasses, stars and more!



### PEACE CORPS MASTER PROGRAM GRADUATE SERVING IN MADAGASCAR

Peace Corps Master Program graduate student Lauren Van Sicklin is in Madagascar. The photo above was taken at her volunteer swearing in ceremony.

Lauren will be living on the east coast of Madagascar in a small village. She will continue projects which include working with an ecotourism start up business called Bamboo Adventure, agroforestry training with the community for erosion control, tree nursery construction, soil improvement and working with a youth organization in environmental education and school gardening.

Stated Lauren, "Madagascar is great! It's beautiful, the people are great, my fellow Peace Corps volunteers are really supportive and everything has been great so far. I'm getting installed at site today. I will not have electricity at my site but there is an office in the park that has internet access that I should be able to use sometimes."

The Master's International program allows students to combine Peace Corps service with their graduate studies. Selected students typically spend one year on campus, subsequently complete 27 months of Peace Corps training and service while undertaking an academic project, then return to campus to fulfill any remaining degree requirements. The Master's International program is currently offered at more than 80 universities across the country.

### STUDENT WILL USE TWO SCHOLARSHIPS FOR HIV RESEARCH IN UNITED KINGDOM

Charles "Chad" Coomer from Louisville will use two prestigious national scholarships to study and conduct HIV research in the United Kingdom. Coomer is a biology and chemistry major student as well as an Honors College student. He has received a U.S. Student Fulbright grant to the UK to complete his master's degree in infection and immunity at University

College London. He has also been accepted into the National Institutes of Health Oxford-Cambridge Scholars Program which will allow him to pursue a doctorate in virology at the University of Oxford while conducting HIV research at Oxford and the NIH.

Dr. Rodney King, Associate Professor of Biology and Coomer's mentor, said he was excited to learn that Coomer had received one of the most prestigious merit-based scholarships.

Coomer is the son of Don and Evell Coomer. He will graduate in May and has been engaged in virology research since his freshman year at WKU.



### GOLDWATER SCHOLARSHIP PROGRAM RECOGNIZES TWO BIOLOGY STUDENTS

Megan Laffoon is the daughter of Jeannie and Glen Laffoon. She is a biology major and a student in the Honors College and Chinese Flagship Programs. Her goals include earning a PhD in conservation ecology and conducting research in environmental restoration. Biology Professor Dr. Albert Meier and Geography and Geology Professor Dr. Chris Groves are her mentors.

Gretchen Walch is the daughter of Jill and Patrick Walch. She is studying biology as a WKU sophomore and Gatton Academy student. She plans to earn a PhD in bioinformatics, conduct research in genetic disease modeling and teach at the university level. Dr. Rodney King, Associate Professor of Biology, is Gretchen's mentor. Dr. King worked with Walch during her first research experience at WKU during her first semester at the Gatton Academy.

## Architectural & Manufacturing Sciences

### NEWS AND NOTES

Habitat for Humanity students completing bridge at Durbin Estates subdivision in cooperation with Warren County Habitat for Humanity as well as the Office of Sustainability at WKU. The bridge will link the educational pond that has been built into the landscape with the entrance walkway for the subdivision.

Five students and faculty Advisor Bryan Reaka will be heading to do a Build week in Durango Colorado with Habitat for Humanity. The week after graduation a group of students from across campus will be traveling to Durango Colorado to assist the LaPlata County Habitat for Humanity Affiliate with framing a home for a partner family there. Every May the Habitat for Humanity WKU Campus Chapter has taken a trip to a far off location to experience the culture and the building methods in different parts of the US and or world.

The Masters of Science in Engineering Technology Management begins a Joint Undergraduate-Master's Program (JUMP) in the fall 2014. Bradley Logsdon and Justin Edwards-Page were the first two students accepted. The program allows high performing students to begin work on a master's degree while completing their undergraduate work.

AMS 490 Senior Research for Architectural Sciences with Ms. Laura Leach presented and defended their Senior Projects on Saturday, April 26th, 2014.

AMS 490 Senior Research for Construction Management with Dr. Ahmed Khalafallah presented and defended their Senior Projects on Saturday, May 3rd, 2014.

AMS 490 Senior Research for Advanced Manufacturing with Dr. Greg Arbuckle presented and defended their Senior Projects on Wednesday, May 7th, 2014.



### STUDENTS VISIT BAPTIST HEALTH HOSPITAL PROJECT IN LEXINGTON

Dr. Khalafallah accompanied five Construction Management students (above: Luis Polanco, Nat Rogers, Joe Staynings, Chase Thompson & Jr. Young) on a field trip to the Baptist Health hospital project in Lexington on April 11th, 2014.

The group also attended AGC's Build Kentucky Awards ceremony (pictured below) thanks to a generous invitation and sponsorship from Mr. Richard Vincent, Executive Vice President, AGC Kentucky.

Mr. Vincent visited with the Construction Management program to discuss the initiation of an AGC student chapter at WKU. The Associated General Contractors of America (AGC) is the premiere commercial construction association in the US.

Trevor Thompson, a senior in Construction Management, was chosen to receive AGC's Education and Research Foundation scholarship. In order to qualify for this prestigious national scholarship, the student must be enrolled in ABET or ACCE-accredited Construction Management or Construction-related engineering program. Congratulations Trevor!

### OGDEN COLLEGE WELCOMES C.I.T.

The Computer Information Technology Program HAS MOVED! The CIT Program is now housed in the Architectural and Manufacturing Sciences Department! We are excited to welcome Dr. Mark Revels and the students into the AMS family. The program currently has over 175 majors including 2+2 and traditional students. We are excited to continue this program within AMS. The program will still be open to new and current students. Please visit the new website for more information.

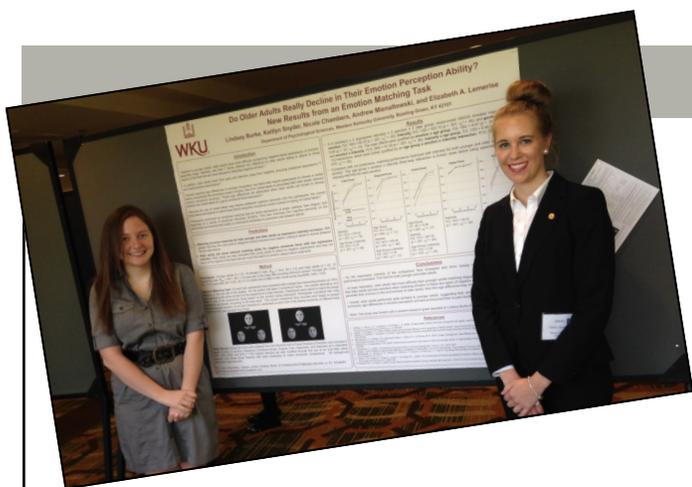


*Jr. Young, Nat Rogers, Chase Thompson, Joe Staynings and Luis Polanco attend AGC's Build KY Awards ceremony*



## Psychological Sciences

*Continued from page 5*



*Photo: Lindsey Burke (left) and Kaitlyn Snyder (right) present their poster at the annual meeting of the Society for Research in Human Development.*

### LINDSEY BURKE AND KAITLYN SNYDER AWARDED FUSE GRANT

Lindsey Burke (Biology/Chemistry) and Kaitlyn Snyder (Psychology/Pre-Med) were awarded FUSE grants to collaborate on a project that examines age differences in emotion recognition ability. Drs. Elizabeth Lemerise and Andrew Mienaltowski served as mentors for the project. Past research suggests that, as we age, emotion recognition ability declines; however, Kaitlyn and Lindsey designed a study that simplified the procedures performed by the participants. As a result of

this simplification, they found that advancing age only minimally impacts emotion recognition. Past research included methods that were contaminated by decision processes that made it appear that older participants were having more problems with emotion perception than they really do.

Lindsey and Kaitlyn presented their poster at the 2014 meeting of the Society for Research in Human Development in Austin, TX. The conference took place on 3/27-3/29.

## Chemistry

*Matthew Nee*



### MATTHEW NEE VISITING UNAM IN MEXICO CITY

Assistant Professor Matthew Nee will head to Mexico City this May for a brief visit to the National Autonomous University of Mexico (UNAM), the largest single-campus university in the western hemisphere. Through a joint arrangement with UNAM, Harvard University, and University of the Pacific, Dr. Nee will meet with dozens of prospective graduate students to help them see what WKU Chemistry (and Ogden College of Science & Engineering) has to offer them. He will also present his research to the chemistry faculty as a guest speaker, focusing on the close connection between structure and reactivity in environmentally relevant compounds, and emphasizing the interconnectedness of OCSE research interests. While the Chemistry Department has been recruiting internationally for several years, this visit is designed to forge relationships in the expanding and underappreciated Latin American academic circles.

### LEVI DOPIERALA FIRST J.U.M.P. STUDENT AT WKU WITH GRADUATE THESIS

Levi Dopierala will graduate this spring as the first student to complete the innovative Joint Undergraduate/Masters Program (JUMP). Levi joined the program in 2012 and began taking graduate-level courses in 2013. His Masters thesis research with Dr. Chad Snyder was recently defended and approved for submission to the Graduate School. JUMP allows students to take several 400-level courses for graduate credit, all without overlap between undergraduate and graduate coursework. The undergraduate degree is certified by the American Chemical Society. JUMP students begin graduate seminar and complete all graduate requirements in their fourth and fifth years in the program, including the planning, execution and reporting of a graduate thesis based on their original research. Levi served as a GTA this year as the primary instructor for a section of CHEM 116. He has been the co-author on peer-reviewed journal articles, and was recognized for his overall contributions to the department at this year's OCSE awards ceremony. Levi's success has helped pave the way for the others in the program who will follow and has served as a model for other programs which combine undergraduate and Masters coursework in a five-year program.