

THE COLLEGE OF NATURAL & APPLIED SCIENCES

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WASHINGTON DC AREA ALUMNI and FRIENDS GALA

WELCOME MISSOURI STATE UNIVERSITY OFFICIALS

On Saturday, October 24th over 100 Washington D.C. area alums and Missouri State adminis-



trative officials came together in the Tower Club in Vienna, Virginia to celebrate the university's new name and the start of Dr. Michael Nietzel's term as its 9th President. The driving force behind this activity was Art Hurtado, Chemistry alum from 1969. Art, along with his Executive Assistant and Event Coordinator, Gail Stamm, organized and worked with several Sponsors, a D.C. area Planning Committee, and several of the university's Foundation and Alumni officials in Springfield to make this gala event happen. In addition to President Nietzel, former Presi-

dent, Dr. John Keiser, also flew in to participate in this event. Pictured above, left to right: Colonel (Retired) Arthur Hurtado, '69; (Event Coordinator) and Dr. Don Landon (Event speaker and author of *Daring to Excel: The First 100 Years of Southwest Missouri State University*.)

Those on the Planning Committee included: Art Hurtado; Gail Stamm, Event Coordinators; John Miller '63 Mathematics; Jadyne Seitz '89 Geography, Geology, and Planning; Bruce Shahbaz '86 Psychology; Pamela Silva '95 Communications; Lynn Straw '99 Design; Jonathan Straw 2001 Communications; Michael Wait '73 Agriculture; and Joseph Zell '81 Marketing.

With the Planning Committee working tirelessly in preparation for this event along with the commitment of the sponsors listed above, this celebration became a memorable evening for everyone involved. Others attending the festivities from Missouri State University in Springfield were: Don Landon, Emeritus Faculty, who spoke of the history of Missouri State



University; Paul Kincaid, Associate Vice President, University Advancement; Greg Onstot, Vice President, University Advancement; Julie Ebersold, Director, Alumni Activities; Bob Beumer, Director of Development, College of Health and Human Services; Marie Murphree, Director of Development, College of Arts and Letters; Carey Adams, Department Head of Communication; Doug Cates; Director of Development, College of Business; Dr. Keith Payne, Department Head, Defense and Strategic Studies; Dr. Larry Banks, Dean, Natural and Applied Sciences; and Dr. Lorene Stone, Dean, Humanities and Public Affairs. Pictured above left to right: Lieutenant General (Retired) John E. Miller, '68; Joan Miller; Rie Gordon; and Major General (Retired) Robert Gordon, '57.

DIRECTLY FROM THE DEAN

by Larry Banks



Welcome to the fall, 2005 issue of the College of Natural and Applied Sciences' News Watch. We are pleased to be starting the NEXT 100 YEARS as MISSOURI STATE UNIVERSITY.

Dr. Michael Nietzel, our new President, is now formally in charge of Missouri State University. He is already beginning to put his mark on the university through new ideas and initiatives. Our long-time Vice President for Academic Affairs, Dr. Bruno Schmidt, (who held the rank of Professor of Physics in this college), retired just before Dr. Nietzel started. Dr. Nietzel has since altered that position to be Provost of the University (second in command). Until a permanent person can be found, Dr. Frank Einhellig (who holds the academic rank of Professor of Biology in this college

and is also the Dean of the Graduate College), is now serving as the university's Acting Provost.

As you have noted on the front page of this issue of NewsWatch, Missouri State owes a great debt of gratitude to Art Hurtado, a graduate of our Department of Chemistry in 1969. Art, his executive assistant at Invertex and event coordinator, Gail Stamm, along with a committee of D.C. area alums and friends of Missouri State University took it upon them selves to insure that this event would be a success; and indeed it was! Thank you Art, and thanks to all the others who made this event possible.

Also we thank Dr. Matt Harthcock and his wife Patricia who opened up their home in Oakland Township, Michigan to host Missouri State University alumni and friends residing in the Detroit area on Saturday June 4th. Matt graduated from Southwest Missouri State in 1977 with a degree in Chemistry. Dr. Bruno Schmidt, Vice President of Academic Affairs was the keynote speaker and Dr. Tammy Jahnke, Chemistry Department Head also attended the alumni event. Matt serves on the Chemistry Advisory Board and he and his wife support the Louise and Roland Harthcock Scholarship, a scholarship established to honor Matt's parents.

The nine departments in our college have four new department heads as this year begins. Steve Jensen has retired as Department Head of the Department of Biology, being replaced by Dr. Alicia Mathis. Dr. Mathis has been at Missouri State University for a number of years and had worked her way up to the rank of Professor of Biology prior to taking on this additional duty. In chemistry, Dr. Tammy Jahnke has moved up to serve as one of two Associate Acting Provosts of Missouri State University. Her position as Department Head of the Department of Chemistry is being held temporarily by Dr. Paul Toom. In the Department of Geography, Geology, and Planning, the Department Head, Dr. Jim Skinner, retired at the end of last December. Dr. Tom Plymate then took over as Acting Head of that department and was later chosen to be its permanent Department Head. The movement of Dr. Ryan Giedd from Department Head of the Department of Physics, Astronomy, and Materials Science to his new position of Executive Director of the university's Center of Applied Sciences and Engineering (CASE) left a big hole in the leadership of that department. Dr. Shyang Huang served as Acting Head last year while a search was conducted for a new department head. I am pleased to tell you that we were able to lure Dr. Pawan Kahol away from Wichita State University to take the position of Department Head of Physics, Astronomy and Materials Science.

The College of Natural and Applied Sciences (CNAS) is managing even as the state of Missouri remains in its financial doldrums. Faculty and staff continue to move us forward through innovative approaches to good teaching, through outside grants for basic and applied research, and through services to our constituents across the state. A number of us in the college are working toward a more unified School of Agricultural Sciences that combines the best of Missouri State's Springfield and Mountain Grove campuses. We are continuing to push toward a doctoral program in the area of materials science that could well combine faculty expertise from the departments of Biology; Chemistry; and Physics, Astronomy and Materials Science. And, thanks to President Nietzel, we are in serious negotiations that would bring some engineering programs to Springfield.

This newsletter is written primarily for our alumni. Our graduates are the most important result of our efforts at Missouri State University to make the world a better place. We don't ever want to forget about them, and we don't want them to forget that current students still need the same educational opportunities that they enjoyed. Faith Giedd, our Director of Development, and I continue to make trips to various cities for this purpose – invite us and we'll try to come to your area.

As always, the remainder of this newsletter is intended to give you a glimpse of a few of the ongoing activities of our departments. I hope you enjoy it.

THE COLLEGE OF NATURAL AND APPLIED SCIENCES HONOR THEIR FACULTY EMERITUS WITH SPECIAL DINNER AND SPEAKER

On Thursday, October 27th, the College of Natural and Applied Sciences entertained our Faculty Emeritus with a special dinner and speaker. CNAS Faculty Emeritus were invited to attend the College's Convocation which



was held at 4:00 p.m. on the same day consisting of awards presentations with special recognition of faculty and staff. The Faculty Emeritus dinner began at 5:30 p.m. This date was chosen in order to encourage many of our Faculty Emeritus to attend this year's Homecoming activities. Pictured below are some of our honored guests and this year's speaker, Robin Melton.

Pictured left, Larry Banks, Dean, CNAS, left front, Paul Toom, Acting Department Head, Chemistry, and his wife, Diane, right front, Lynda Plymate, Department of Mathematics.

Robin Melton, pictured right, was a 1988 graduate of Missouri State University with a major in



Geography and a minor in Geology. She is the owner and president of Environmental Works in Springfield, and has over 14 years of experience managing environmental projects in Southwest Missouri and across the United States. In addition to running her own business, she is also the project manager for multiple environmental projects being conducted across the United States for a major rail carrier. She was the recipient of the Outstanding Young Alumni Award from Missouri State University in 2002. Also in the year 2002,



Environmental Works, Inc. was presented with the prestigious W. Curtis Strube Business of the Year Award by the Chamber of Commerce of Springfield, Missouri. Robin's firm employs approximately 42 people, several of whom are Missouri State University alumnus.



COLLEGE OF NATURAL AND APPLIED SCIENCES 2005 CONVOCATION

The College of Natural and Applied Sciences held their annual College Convocation on Thursday, October 27th, with a short reception followed by the presentation of awards and special recognition of CNAS faculty and staff. The CNAS Emeritus Faculty were also invited to attend to renew old friendships and be a part of the celebration. The Convocation was followed by a special dinner in honor of the CNAS Emeritus Faculty.

Special speakers included Dr. Janice Greene, Director of the Bull Shoals Field Station, who gave a summary of the recent remodeling and update of the Bull Shoals Field Station; Mrs. Faith Giedd, CNAS Director of Development, presented a brief update of the CNAS fund-raising/scholarship activities; and Dr. Robert Pavlowsky, Director of the Ozarks Environmental Water Resource Institute, presented a summary of the creation and operation of the OEWRI.

Recognition was made to those who received 2004-2005 University and Foundation Awards. They were: University Excellence in Teaching, John Havel, Biology; Dimitri Ioannides and Judith Meyer, Geography, Geology, & Planning; Foundation Excellence in Research, Miles Barnhart, Biology; and Paula Kemp, Mathematics; University Excellence in Research, Alicia Mathis, Biology; and Charles Rovey, Geography, Geology, & Planning; University Excellence in Service, Linda Plymate, Mathematics. College awards were presented in the categories of Teaching, Research, and Service as well as Excellence in Performance for staff which was broken down into three employee categories. College award recipients are pictured below.

2004-2005 EXCELLENCE IN TEACHING

Pictured below left, left to right: Jeannie Ireland, Applied Consumer Sciences; Arbindra, Rimal, Agriculture; Nikolay Gerasimchuk, Chemistry; and Melida Gutierrez, Geography, Geology, & Planning. Not pictured: Paul Durham, Biology and Michael Reed, Physics, Astronomy, & Materials Science;



2004-2005 EXCELLENCE IN RESEARCH

Pictured below left to right: Mark Richter, Chemistry; Gary Webb, Agriculture; and Kevin Evans, Geography, Geology, and Planning. Not pictured: Alexander Wait, Biology.



2004-2005 EXCELLENCE IN SERVICE

Pictured below: Sue Webb, Agriculture; Clydette Alsop, Agriculture; Monika Moskal, Geography, Geology & Planning; and Don Moll, Biology. Not pictured: Eric Bosch, Chemistry.



2004-2005 STAFF AWARDS

Below left to right Janice Moll, Administrative Support; Brian Hays, Support Services II; and Janice Horton, Support Services I.



Missouri State University Students Awarded First Place in the Missouri Academy of Science Collegiate Poster Division

Submitted by Michelle Bowe

A group of students in Dr. Michelle Bowe's, department of Biology lab presented a poster of their project, entitled "Genetic



Pictured above: Megan and Shane collecting at McDaniel Park

Invasion: Hybridization between native and non-native elms in Southwest Missouri" at the Missouri Academy of Sciences meeting in Jefferson City this April. The poster was awarded first place in the MAS Collegiate Division. The research group includes biology majors **Megan Ladd**, **Jamon Lewis** ('05) and **Brandi Gerik** ('05), and post-baccalaureate student **Shane Snider** ('04). Last summer, Dr. Bowe, Megan and Shane went on numerous field trips in search of the invasive Siberian elms, the native slippery and American elms and their hybrids. Samples were then brought back to the lab, DNA was extracted and each elm was fingerprinted using genetic markers called Amplified Fragment Length Polymorphisms. Megan and Shane plan to continue working with this project. The project was funded by a Missouri State University faculty research grant to Dr. Bowe.



Pictured above: Jamon, Megan and Mike Gerber (BMSmajor) examining elm flower buds at Sequiota

Missouri State University Hosts 85th Annual American Society of Mammalogists

The Department of Biology and the College of Natural & Applied Sciences hosted the 85th meeting of the American Society of Mammalogists, June 15-19, 2005, in Temple Hall and Plaster Student Union on the Missouri State University campus. The annual conference is an opportunity for members to meet and exchange ideas about research that is being conducted in the field of mammalogy. Approximately 500 members and guests from around the world (mostly employed by universities and government agencies) were in attendance. It is an excellent opportunity for young biologists to meet senior scientists, to gain knowledge

from their experience, and to get ideas and feedback about their own research projects.



The meeting began with an opening social held Wednesday night, June 15th at the University Plaza. Research presentations began the following morning and ran for the duration of the meeting. Researchers could present their work in either an oral presentation or a poster presentation.

A total of 123 oral presentations were given throughout the week, and 152 posters were presented during the poster sessions. Other highlights of the meeting included a picnic held at Bass Pro Shop, a banquet and auction, a trip to Ozark Cavern and Lake of the Ozarks State Park, and a floating trip on the James River. The concluding Capstone Address was given by Dr. Robert Ricklefs, a professor from the University of Missouri - St. Louis and eminent ecologist and author. The title of his presentation was: History, Geography, And Diversity: Issues and Examples from an Avian Perspective. Members of the local committee who organized the meeting included Dr. Tom Tomasi, Dr. Mark McKnight, Ken McCrory, Miranda Milam, Corinne Schoppet, and Christin Dzurick.

SUMMER RESEARCH

by Michael Sallee

Michael Sallee, below left, pictured with Dr. Sarah Elsea.



My summer was spent doing research with Dr. Sarah Elsea, (BS, Chemistry, Missouri State University 1990) a professor in the Department of Pediatrics at the Medical College of Virginia, Virginia Commonwealth University in Richmond. The Elsea Lab studies a genetic disease known as Smith-Magenis Syndrome (Missouri State University). This disorder is thought to be caused by the Retinoic Acid Inducing 1 (RAI1) gene found at chromosome 17p11.2. Specifically, deletions in these

regions are thought responsible for characteristic behavior abnormalities, distinct craniofacial features, sleep disturbances, and mental retardation. Many of these deletions can be detected using fluorescence in situ hybridization (FISH) utilizing specially designed probes to detect the existence of the RAI1 sequence. However, not all potential diagnosis can be done via this method, so direct DNA sequencing must be done. Using patient samples and whole blood, I isolated DNA and amplified it for sequencing. Sequences were then analyzed and compared to the current, known RAI1 sequence obtained from the human genome database. Over 150 sequences were examined for known and unknown polymorphisms, mutations, and/or deletions of the RAI1 gene. The most exciting part of the summer came when several previously undocumented single nucleotide polymorphisms (SNPs) were discovered in patient samples. These SNPs are candidates for previously unknown mutations depending on their frequency. SNPs are mutations seen in > 1% of the population. These findings are significant and expected to be published at a later date. Additionally, I had the opportunity to perform karyotyping, a medical test where chromosomes are stained, paired, identified, ordered, and arranged, with the Department of Human

Sarah Stiles pictured below.



Rheometer (DSR). The DSR is used in many industries including foods, pharmaceuticals, cosmetics and plastics, among others. I was also trained to use a Rolling Thin Film Oven (RTFO), a Bending Beam Rheometer (BBR) and a Cleveland Open Cup Flash Test. I also performed a test to find the specific gravity of asphalts, separation tests to determine the amount of polymer added to asphalt, along with many other tests. It was a wonderful experience, and I learned so much. MoDOT takes interns each summer, and I would recommend it to anyone because it was a wonderful experience.

National Academic Advising Association Presents 2005 Outstanding Advising Award



On October 5th in Las Vegas, Dr. Tom Tomasi (Biology) pictured left above, was presented with the 2005 Outstanding Advising Award from the National Academic Advising Association (NACADA). The NACADA president, Eric White, pictured right above, made the presentation. Ten such awards are given annually to faculty. Dr. Tomasi was nominated for this award after receiving the 2005 Missouri State University Excellence in Advising Award last spring. Angela Spence (Biology) received the same Missouri State University and NACADA awards in 2003, making the Biology Department the only academic unit on campus with two such award winners.

SUMMER INTERNSHIP

by Sarah Stiles

In the spring semester of 2005, Dr. Jahnke sent out a departmental email regarding an internship with the Missouri Department of Transportation (MoDOT) in the Chemicals Lab located in Jefferson City. Because I was returning to Jefferson City for the summer and knew that this would be a good experience, I immediately began the application process. I received the internship from the Director of the Chemicals Lab, Todd Bennett, a graduate of Missouri State University.

I began working in the bituminous department of the lab at the Performance Grading (PG) Bench. Throughout the summer I performed multiple tests on different grades of asphalt. I was immediately trained on a Dynamic Shear

An International Symposium Organized by the Department of Fruit Science and Hosted by Missouri State University

Grape Genomics at Missouri State University, left to right: Jim Moore, Jerry Burch, Inno Onwueme, Paul Kincaid, Michael Nietzel, Wenping Qiu, Laszlo Kovacs, Dan Waldstein, Patrick Byers, Csaba Fekete, Raymond Fung, Brijesh Karakkat



The Department of Fruit Science hosted the very first international meeting on grape genomics last July in St. Louis. The meeting was attended by about 100 scientists from 17 countries representing all five continents where grapes are grown. Plant genomics is a new science at the leading edge of agricultural research. During the past decade, it has become dominant in the study of all agricultural crops, including grapevine. A grape genomics research program, The Vitis Gene Discovery Program, led by Wenping Qiu and Laszlo Kovacs,

was initiated two years ago at the Department of Fruit Science at the Missouri State Campus at Mountain Grove. The goal of the program is to understand the molecular basis of disease resistance in wild grapes that originate in the Ozarks and other regions of North America.

Grapes from the Missouri Ozarks played an important role in the development of pest- and disease-resistant rootstocks which are now used all around the world. For this reason, St. Louis was a particularly appropriate location to hold the symposium. The idea to organize the symposium, originally proposed by administrators Drs. Jim Baker and Murli Dharmadhikari at the Mountain Grove Campus, was taken to the International Grape Genome Program (IGGP) by Laszlo Kovacs. The IGGP, a world-wide association of scientists who coordinate their work in the various sub-disciplines of grape genomics, agreed to undertake the organization of the scientific program of the meeting. The symposium was hosted by Missouri State University with opening comments delivered by President Nietzel. The Symposium was the closing event in the university's centennial celebration series. Co-sponsors included the Monsanto Company, Sigma-Aldrich Corporation, Nidus Center for Scientific Enterprise, Missouri Botanical Garden, and the Missouri Grape and Wine Industry. Members of the Planning Committee from Missouri State were Pamela Mayer, Marilyn Odneal, Susanne Howard, Patrick Byers, Wenping Qiu, and Laszlo Kovacs.



Left to right: Donna Moore, Jim Held of Stone Hill Winery, Jim Moore, Emeritus Faculty, former Director of the State Fruit Experiment Station.



Identifying wild grapevines left to right: James Trager, Shaw Nature Reserve; Patrick Byers, Department of Fruit Science; symposium attendees.



Missouri Botanical Garden Library, Rare Books Room. Researchers inspect historical volumes.

INTERIOR DESIGN DEPARTMENT COMPLETES PROJECT AT FAMILY VIOLENCE CENTER



Pictured above left to right: Sara Doelling, Jennifer Enchelmaier and Megan Brady painting a butterfly and some flowers inside a framed area.

HID 342, Contract Design 1, in the Interior Design department is completing a service project at the Family Violence Center. Susan Dodd who works with the United Way contacted design instructor, Nancy Asay, to see if there were any classes that could help. After an interview with Ms. Dodd and the director of the center, Dena Kimery, with interior design students, made background color selections and painted graphics to create a more “friendly and inviting” entrance into the facility. The United Way paid for the supplies.



Pictured above: Jessica Keeter painting a flower garden around a picket fence.

FASHION GROUP INTERNATIONAL, INC. CLOTHING AND TEXTILES CAREER DAY

On October 14, approximately 50 Missouri State University students from the Clothing and Textiles Program traveled to Kansas City, Missouri, to attend Career Day, an annual event sponsored by the Fashion Group International, Inc. Over 250 students from universities in a 6-state region attended workshops on career tracks in fashion, participated in resume reviews, networked with industry professionals, and competed for scholarships. Some of the universities and colleges participating included the University of Missouri-Columbia; Kansas State University; University of Nebraska – Lincoln; Stephens College; and the University of Oklahoma. For the third year in a row, one of our students won first place in the original design competition. **Jennifer McKelvie**, a senior in Fashion Design/Product Development was awarded the top scholarship for her senior collection, a grouping of four ensembles created from Tyvec, which she hand-painted before cutting and sewing into original garments. Three of our other fashion merchandising and fashion design/product development majors also won scholarships for their visual presentation boards: Kristine Banasik and Meghan King won 4th place for Merchandising for Retail Store concept, and Fuyuko Iimori won 3rd place for her Personal Shopper Illustration board. In total, these students came home with about \$1,500 in scholarship monies, validation of their amazing work, and



important recognition to include on their resumes. Faculty/staff sponsors included Sandy Bailey, Pat Juncos, and Michele Granger. They, too, came home with a lot of pride!



By Jennifer McKelvie

Fed by my addiction to salvage yards, steel manufacturing plants, and demolition sites, I have constructed this recent collection utilizing industrial materials and imagery. Galvanized cables, screens, wires, and clamps accentuate my hand-treated DuPont Tyvek designs. This fabric’s thermoplastic properties allow me to manipulate its shape and surface texture, providing a sculptural quality that sanctions the structure of designs to be reborn as freestanding forms, each with its own skin and identity.

52nd Midwest Solid-State Conference Third Place Recognition for Missouri State University Students

Several Missouri State University students and faculty members traveled to the 52nd Midwest Solid-State Conference held October 08-09, 2005 at the Life Science Center, University of Missouri, in Columbia.

Dozens of presentations were made of research papers and posters, including “Electron Beam-induced Surface Modification and Nano-engineering of Carbon Nanotubes”, authored by Nathaniel Smith, Rishi Patel, and Dr. Sanju Gupta. Out of seventy presentations, this poster took Third Place with a cash award of \$75.00

Nathaniel, pictured right, is a graduate student in Materials Science and works with the Center for Applied Science and Engineering. Rishi is a Research Specialist who also works with CASE. Dr. Gupta is a PAM faculty member whose focal area is Materials Science.



40th Midwest Regional Meeting of the American Chemical Society October 28th, Joplin, Missouri

At the 40th Midwest Regional Meeting of the American Chemical Society in Joplin on October 28th, Nathaniel Smith (Materials Science), presented a poster entitled “Electrochemical Controlled Synthesis of Micro/ Nanostructured Conducting Polymer Polypyrrole and Characterization”. On November 28 he attended the 2005 Materials Research Society Fall Meeting in Boston, Massachusetts where he presented the poster “Investigations of DC Electrical Resistivity in Electron-Beam Modified Carbon Nanotube Films”. Nathaniel earned his B.S. at Missouri State University (2005) and is currently a Graduate Assistant in the Center for Applied Science and Engineering. Dr. Sanju Gupta is his faculty research advisor.



Three Physics, Astronomy and Materials Science students attended this year’s Argonne Symposium for Undergraduates in Science, Engineering and Mathematics. The 16th annual symposium took place on November 4-5 at the Argonne National Laboratory near Chicago, Illinois. Materials Science presenters were Lamine Fadiga, pictured left and Justin Riley, pictured below left; research advisors were Drs. Kartik Ghosh and Sanju Gupta, respectively. Lamine presented the paper “Fabrication of Inorganic-Organic Spintronic Devices” and Justin presented “Residual Stress Distribution and Elasticity Maps in Diamond Films for MEMS Applications”. In the category of Astrophysics and Geophysics, Johnathan Rinck presented “The Structure Surrounding Nb in a Hydrous Nb-Bearing Silicate Melt at Elevated Temperatures and Pressures”. Johnathan’s faculty research advisor is Dr. Robert Mayanovic.



In September, undergraduate Stacey Harms, pictured right, attended the 2005 Great Midwestern Space Grant regional meeting in Chicago, where she presented a poster. Stacey, a senior and past president of the campus chapter of Society of Physics Students, has traveled extensively in conjunction with her research in Astronomy and Astrophysics. Her advisor is Dr. Mike Reed.



PHYSICS, ASTRONOMY AND MATERIALS SCIENCE DEPARTMENT WELCOMES NEWCOMERS

In July, Pawan K. Kahol, pictured right, joined the Physics, Astronomy and Materials Science Department as new Department Head, replacing Shyang Huang, who served as Acting Department Head for the past 12 months. Dr. Kahol comes to us from the Department of Physics at Wichita State University. In recent years his research has focused on the electronic properties of conducting polymers, a major area of interest for him since 1982. Born in Punjab, India, Dr. Kahol spent several years in Europe (in Stuttgart, Germany and Leeds, England) as well as two years at West Virginia University before moving to Wichita. Since coming to Missouri State University, he is working toward a variety of goals, including the addition of a post-graduate program in physics, and the improvement of existing laboratory facilities.



Assisting Dr. Kahol in working toward this second goal is Randy Teye-Mensah, pictured left, a new Laboratory Supervisor who also joined the department in July. Randy comes from Ghana in western Africa by way of Ohio, and replaces prior Lab Supervisor Kathy Gietzen. Randy gained valuable lab experience as a graduate assistant at University of Akron, where he taught physics labs and earned a departmental teaching award while attaining his Master's degree. Prior to his graduate work in Akron, Randy taught high school physics in his native Ghana.



In June, Electronics Technician Corbin Campbell, pictured below right, came on board to support multiple departments in CNAS. Corbin is a Missouri State University alumnus and may be called on to perform a variety of technical and electrical duties. When he's not out working on site, Corbin can be found in Electronic Support, room 151 in Temple Hall.



The students, faculty and staff of the Physics, Astronomy and Materials Science department join all of CNAS in welcoming Pawan, Randy and Corbin to Missouri State University; we also extend a sincere thank you to Dr. Shyang Huang for heading the PAMS department in the interim.

'NEW' Earth Science Attracts More Majors

The new Earth Science Education program that replaced Unified Science in 2003 in the Department of Geography, Geology, and Planning has attracted more majors. We now have more than doubled the number of students majoring to be High School teachers with an emphasis in Earth Science. These new students have been a great influence to the Geography, Geology, and Planning Department as it has strengthened the activities related to science education. One example is Angie Anderson (Earth science education major) who was instrumental in having three workshops for teachers being offered within the month of October, WET (Water Education for Teachers), Project Learning Tree, and Project WILD, in which more than 40 pre-service teachers participated.

MAKO Undergraduate Mathematics Research Conference

The first MAKO Undergraduate Mathematics Research Conference was held on Saturday, November 12, 2005 on the Missouri State University campus. Undergraduates and faculty from Missouri, Arkansas, Kansas, and Oklahoma were invited to attend. The highlight of the conference included short presentations by undergraduates on their research. The conference was co-hosted by College of the Ozarks, Drury University, Evangel University, Missouri State University, and Southwest Baptist University. Funding for the conference was provided by NSF grant DMS-0241090 through the MAA Regional Undergraduate Mathematics Conferences Program.

In order for the College of Natural and Applied Sciences to continue to excel, your help with scholarship and development funds would be greatly appreciated. A variety of giving opportunities are listed below. Please complete the area in which you wish your gift credited.

\$50 \$100 \$150 Other

- Agriculture_____
- Applied Consumer Sciences_____
- Biology_____
- Chemistry_____
- Computer Science_____
- Fruit Science_____
- Geography, Geology & Planning_____
- Mathematics_____
- Physics, Astronomy & Materials Science_____
- College of Natural and Applied Sciences_____

You may also make your contributions payable to the following scholarship fund:

College of Natural and Applied Sciences Scholarships

Your gift is tax deductible. Please make checks payable to Missouri State University Foundation and return with this form to Missouri State University, College of Natural and Applied Sciences, Temple 142, 901 S. National, Springfield, MO 65804.

Please feel free to use the enclosed postage free envelope for your contributions and news items.

We would like to hear from you about what you have been doing since attending Missouri State University.

Name: _____

Major: _____

Degree/Year Granted: _____

Year/Years Attended Missouri State University:

**Whats Coming Up
HAPPY HOLIDAYS!**

Thursday, December 8

Friday, December 9

Saturday, December 10

Friday, December 16

Monday, December 26 - Monday, January 2nd

Tuesday, January 3rd, Winter Break

Monday, January 16th

Monday, January 17th

Monday, February 20th

Saturday, March 18 - March 26

Last Day of Classes

Study Day - No classes, offices open

Friday, December 16th, Final Exams

Commencement

Holiday Break

No classes - offices closed

No classes - offices open

Martin Luther King Holiday -

No classes - offices closed

Spring Semester Begins

Presidents' Day

No Classes - offices closed

Spring Break - No classes - offices open

Missouri State University is a community of people with respect for diversity. The University emphasizes the dignity and equality common to all persons and adheres to a strict nondiscrimination policy regarding the treatment of individual faculty, staff, and students. In accord with federal law and applicable Missouri statutes, the University does not discriminate on the basis of race, color, religion, sex, national origin, ancestry, age, disability, or veteran status in employment or in any program or activity offered or sponsored by the University. In addition, the University does not discriminate on any basis not related to the applicable educational requirements for students or the applicable job requirements for employees. The University maintains a grievance procedure incorporating due process available to any person who believes he or she has been discriminated against. Missouri State University is an Equal Opportunity/Affirmative Action employer. Inquiries concerning the grievance procedure, Affirmative Action Plan, or compliance with federal and state laws and guidelines should be addressed to Jana Estergard, Equal Opportunity Officer, Sicheluff Hall 296, 901 South National Avenue, Springfield, Missouri 65897, (417) 836-4252.