

AUBURN UNIVERSITY
Journey
The College of Sciences and Mathematics 2009

**Mercy
Medical Clinic**

Inspiring Students to Serve



AUBURN

UNIVERSITY

AUBURN UNIVERSITY'S COLLEGE OF SCIENCES AND MATHEMATICS

I M A G I N E . . .



"Imagine a young COSAM faculty member embarked on a groundbreaking research career leading to Constitution Avenue in Washington, DC to be honored as a member of the National Academy of Sciences."

— Dean Stewart Schneller



COLLEGE OF SCIENCES
AND MATHEMATICS



The National Academy of Sciences

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MESSAGE

From the Dean



“JOURNEY: THE BEND IN THE ROAD IS NOT THE END OF THE ROAD UNLESS YOU REFUSE TO MAKE THE TURN.”

-AUTHOR UNKNOWN

The economic downturn has not spared Auburn University or its College of Sciences and Mathematics. However, the College must confront this situation with the intent of protecting the high quality that has been the trademark of COSAM's programs. We are moving forward knowing that within challenges exist opportunities that are captured with vision and context.

With our undergraduate program, we must ensure a creative teaching environment that promotes active learning, critical thinking, and collaboration, all guided by faculty with a passion for their discipline and a desire to communicate transparently with today's students who exist in a digital life style that is mobile and social.

The research conducted by the College's faculty in a synergistic manner with our students (undergraduate and graduate) must focus on those issues that match federal priorities without restricting faculty imagination. A sampling of those areas are improved health, environmental/climate/natural resources, energy, and the national infrastructure. For this goal, COSAM has ordered its research endeavors in clusters consistent with these areas. Additionally, mathematics and science education, which are both often seen as outside the traditional laboratory/field research classification, are scholarly cluster priorities for the College.

In a radio address on December 17, 2008 to announce his science team, President Obama offered the following:

“...Today, more than ever before, science holds the key to our survival as a planet and our security and prosperity as a nation. It is time we once again put science at the top of our agenda and work to restore America's place as the world leader in science and technology...I am confident that if we recommit ourselves to discovery; if we support science education to create the next generation of scientists and engineers right here in America; if we have the vision to believe and invest in things unseen, then we can lead the world into a new future of peace and prosperity.”

I believe nothing better states the framework of opportunities COSAM is poised to embrace and lead. The fruits of our efforts and those of others will return our society to a place of confidence, security and stature to which we all aspire.

Please join me in supporting our commitment.

Best to you in the Auburn way,

A handwritten signature in black ink that reads "Stew Schneller". The signature is written in a cursive, flowing style.

Dr. Stewart Schneller,
Dean and Professor

2009

Journey/Spectrum

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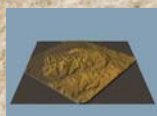
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COSAM

Mission Statement

The mission of the Auburn University College of Sciences and Mathematics is three-fold: to *teach* by providing an environment that ensures excellence in the biological, physical, and mathematical sciences for the purpose of preserving, interpreting, and conveying existing knowledge; to *research* by creating, integrating, and applying new knowledge; and to *reach out* to others by fostering educational exchange within the university, the Alabama community, and society as a whole.

- Dean and Professor
Dr. Stewart Schneller
- Associate Dean for Academic Affairs
Dr. Larry Wit
- Associate Dean for Research
Dr. Marie Wooten
- Associate Dean for Diversity and
Multicultural Affairs
Dr. Velma Becton Richardson
- Director of Outreach
Mary Lou Ewald
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Candis Hacker Birchfield '97
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Christy Kyser Truitt '92
- Graphic Designer
Candis Hacker Birchfield '97
- Photographers
Timothy Meeks, Candis Hacker Birchfield '97

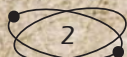
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Journey/Spectrum is paid for by alumni and friends of the College of Sciences and Mathematics.

The Auburn University College of Sciences and Mathematics is committed to providing opportunities of inclusion for its faculty, staff and students. For more information on the Auburn University College of Sciences and Mathematics, visit www.auburn.edu/cosam.



MESSAGE

From the President

Jay Gogue

Dear Auburn Alumni and Supporters,

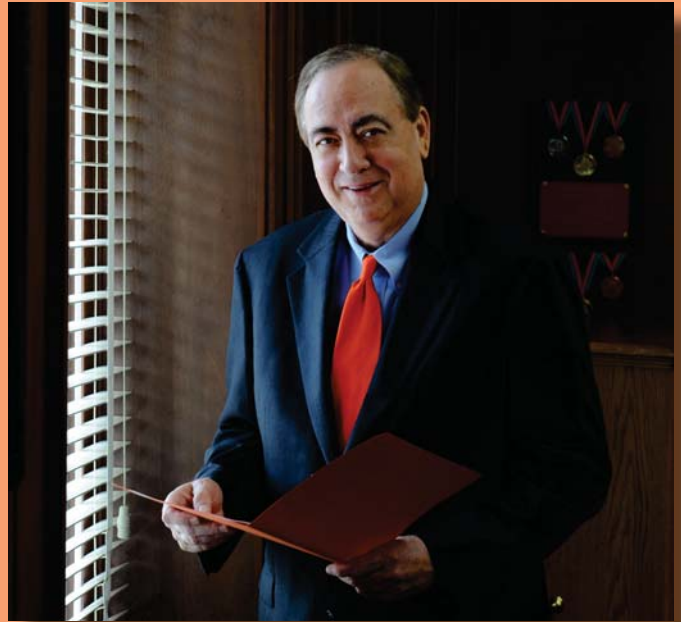
Initiatives in Auburn University's recently completed strategic plan to enhance academic quality and reputation are under way. For this year, Auburn is concentrating on 35 of the 58 tactics in six strategic priority areas, and the first status report to the Board of Trustees in November summarized progress to date. Among the highlights reported:

The writing requirement on ACT/SAT college entrance exams for entering freshmen will be implemented this year, and a writing center operational by this fall to help colleges and schools implement new standards for improving the quality of student writing across the curriculum and within their disciplines.

Faculty and academic administrators are developing a new model for the Honors College. A successful Honors College is a critical catalyst to increasing institutional quality, and a key draw for top performing students.

Providing students more international education presents a challenge Auburn is determined to meet. While the University is expanding programs and incentives to get more students involved in Study Abroad, many students can't participate due to financial or other reasons. Administrators and faculty are working together to find ways to help these students increase international knowledge that prepares them for a global society.

Each school and college at Auburn now has at least one Study Abroad program, and the number of students in the Auburn Abroad faculty-led and exchange programs increased from 469 two years ago to 565 last year, with an additional



137 students approved to study at international universities for Auburn credit. So, the total number of Auburn Abroad students reached 702 last year. Twenty new Auburn faculty-led programs have been added for 2008-09, bringing the total number of programs to 49, and the goal is to move toward a 20 percent participation rate for all programs abroad.

The University should make rapid progress this year in establishing learning communities where students with similar academic interests are grouped to support their long-term academic development. The Village residential community is being built to facilitate that model, and more opportunities to encourage involvement in service learning, another widely cited element of academic growth, are under way.

The campus community has shown a great deal of initiative in developing and implementing a workable strategic plan, and periodic review and adjustments to meet changing conditions will help ensure continued participation and success.

War Eagle!

Dr. Jay Gogue, President

MESSAGE

From the Associate Dean for Academic Affairs

Larry Wit

“Things are still changing on the campus. If you haven’t paid us a visit for a while, you would be stunned to see the differences.”



Has another year slipped by? Is it time once again to reflect a little and write an article for *Journey*? Every year (now my 33rd) seems to go faster and faster!

Things are still changing on the campus. If you haven’t paid us a visit for a while, you would be stunned to see the differences. Perhaps the greatest changes are on the west side of campus where The Village is rapidly becoming a reality. This new complex of dorms will house approximately 1,600 students in modern and appealing facilities. Residents will have their own private room with an adjoining bath connected to another resident’s private room. These two students will share a common living area (living room and kitchenette) with two other students. For those of you who lived in “Mag” dorm, I know this sounds like a significant upgrade; it certainly is! Also, the complex will house the sorority chapter rooms and a new dining facility. These facilities will allow far more students to live on campus — something Auburn University has needed for a long time.

The new student union is fully functional and far more spacious than Foy Union. Many people have commented that it reminds them of an airport. Indeed it does as there are lots of open spaces where the students can just hang out. Also, there is a diversity of “restaurants” distributed throughout the building. Although now a few years old, our new facilities are still wonderful. Just yesterday, I walked through the new lab building and observed students in numerous labs feverously working away. Actually, the weather was inclement, and I was walking the halls to get a little exercise. As I breathed the fresh and odorless air, I was impressed once again by the incredible teaching facility we have and wondered what the chances were that I would have ever gone for a refreshing walk in the old Saunders lab...never!

On official census day this past fall, COSAM had 2,848

undergraduates and 344 graduate students. This represents remarkable growth when you consider that in 2000 we had only 1,702 undergraduates and 241 graduate students. Both of these far outpace the growth in the university-at-large. We are not only getting bigger; we are also enrolling an ever-increasingly more talented group of students. Last fall, the entering COSAM freshman class had an average high school GPA of 3.82 and an average ACT of 26.8. The ACT figure represents an increase of more than an entire point in a single year! Mixing this quality student with world-class faculty and facilities makes me excited about what our future graduates are going to do.

Our ever-innovative advising staff has initiated some novel ways of delivering information. One of our academic advisors has produced several podcasts. These podcasts are various vignettes relating to different advising issues. For example, there is one entitled, “I Want to go to Medical School.” Another is entitled, “How Does Transfer Credit Work?” Another one of our advisors recently developed a *Facebook* page for the COSAM advising group. It is simply another electronic place where we can exchange information with our students. Will it work? We think so. In the first 24 hours we had more than 200 members join the group, some within minutes of when we posted the information.

So what has been going on with you? I would love to hear from you. Just take a minute or so and send me an e-mail at witlawr@auburn.edu. Better yet, come by for a visit at one of our tailgates this coming fall or just stop by the office anytime you are in the area. I would love to talk and show you around the campus.

Lawrence C. Wit

Dr. Lawrence C. Wit

Associate Dean for Academic Affairs

MESSAGE

From the Associate Dean of Diversity

Velma B. Richardson

2008: A Year of Active Engagement, Innovation, Collaboration and Achievement



The year 2008 saw an increase in the number and range of activities and services provided by the Office of Diversity and Multicultural Affairs. Our first departmental retreat and the addition of Sherre Padgett, a highly capable and enthusiastic staff member, catapulted our mindset into a more “**active engagement**” mode. As a result, we witnessed an increase in the number of visits to our Workshops of Excellence tutorials and peer-mentoring services, and noted increases in attendance at speaker forums and informationals.



We are especially pleased with student participation in our latest retention effort: undergraduate research. We are convinced that early engagement in research enlivens the classroom-learning experience, enables students to discern the interdisciplinary nature of the scientific enterprise, and makes students more open to alternative career paths. Moreover, participation in undergraduate research often plays a pivotal role in students attaining a sense of belonging in the larger university setting. This year we celebrated a doubling in the number of students engaged in research in labs located in COSAM, the Harrison School of Pharmacy, and the College of Veterinary Medicine.

The Summer Bridge Program (SBP) remains the centerpiece of our recruitment efforts. SBP is the portal for talented and highly motivated incoming freshmen from disadvantaged backgrounds to gain access to the resources needed to transition successfully from high school to college. Twenty-five students from underrepresented populations in the sciences and mathematics participated in the 12th annual SBP. Five of the six counselors/peer mentors were SBP alums.

Innovations in the delivery of academic and support services fueled by **collaborations** with campus and community-based partnerships were major themes for SBP 2008. Instruction in Fiscal Literacy was integrated into our curriculum thanks to the assistance of the AT&T Pioneers, long-time supporters of SBP. Students of SBP also gained confidence as they collaborated with COSAM Outreach and a local community-service organization, providing active

learning activities for middle-school students or “budding scientists.” They extracted DNA from strawberries, explored the concept of solubility by dyeing t-shirts and probed the concept of polymers.



The impact of our efforts is evident as an unprecedented number of minority students advance in COSAM curricula and attain outstanding levels of scholarship. For example, subsets of the 2007 and 2008 SBP cohorts are continuing to build on the admirable record of academic **achievement** established during their first semester in residence. In addition, the recent surge in the number of SBP alums who gained admittance to professional programs of study such as pharmacy is also enlightening. It is especially encouraging that three SBP alums will be members of the incoming fall 2009 enrollment in the Harrison School of Pharmacy. These students will join two SBP alums currently enrolled in this highly esteemed program. We congratulate these and other COSAM students who graduated in 2008. We wish each of them a highly successful and rewarding career.

Finally, we extend a warm welcome to Mrs. Sherre Padgett, a former secondary-education teacher. Sherre joins a diversity staff that embraces the challenge to increase access, enrollment, retention, academic achievement and graduation of talented minority students in the sciences and mathematics.

A handwritten signature in black ink that reads "Velma B. Richardson". The signature is fluid and cursive.

Dr. Velma B. Richardson
Associate Dean of Diversity

2008-2009

COSAM Leaders

The COSAM Leaders are an exemplary group of students who serve the college as its official ambassadors.



*Back row from left: Patrick Llewellyn, Trey Mann, Adam Jones, Davis Reed, Tyler Wahl, Ben Samuelson, Steve O'Neil, Bhaven Sayania
Front row from left: Megan Bagby, Katie Hodges, Meredith Gaston, Sarah Bragg, Michelle Bushnell, Sharon Lim, Brittany Barnes, Krystal Lockett*

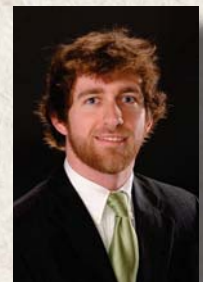
2008 Dean's Medalists

The Dean's Medalists are outstanding graduating seniors in each department.



*Top row from left: Zachary T. Aldewereld (Physics, Birmingham, Ala.), Kelly E. Moreland (Biological Sciences, Huntsville, Ala.),
S. Caitlin Cox (Biomedical Sciences, Auburn, Ala.), Shawn M. Curtis (Chemistry & Biochemistry, Rochester, N.Y.)*

*Bottom row from left: Erin E. Beebe (Biomedical Sciences, Venice, Fla.), Kristin A. Coleman (Biological Sciences, Wetumpka, Ala.),
Steven C. Clontz, Jr. (Mathematics & Statistics, Huntsville, Ala.), Stephen A. Tonks (Biological Sciences, Ashland, Ala.),
Dustin R. Kimbrow (Geology, Troy, Ala.)*



FEMINELLA NAMED CHAIR OF THE DEPARTMENT OF BIOLOGICAL SCIENCES



There is an unspoken requirement of a leader to create a vision for his charge. Jack Feminella, Ph.D., chair of the College of Sciences and Mathematics' Department of Biological Sciences, keeps his simple. "We don't want to stay where we are. We always want to get better."

Dr. Feminella, a professor in Biological Sciences, was named department chair in 2008, succeeding James Barbaree, Ph.D. Admittedly, Dr. Feminella hesitated when crossing the administrative line.

"We're trained as scientists, not managers of people," he says. "But I ultimately saw a great opportunity to help the department grow and realize its potential."

Dr. Feminella cites the faculty of Biological Sciences as one of the more attractive aspects of accepting the responsibility as department chair. "Two members of our faculty received prestigious University faculty awards in 2008." Roland Dute, Ph.D., of the department of Biological Sciences received the Gerald and Emily Leischuck Endowed Presidential Award for Excellence in Teaching. Jonathan Armbruster, Ph.D., associate professor in Biological Sciences, was also named an Alumni Professor. Another indication of faculty excellence, Dr. Feminella notes, is the regular stream of grants flowing from such competitive sources as the National Institutes of Health and the Department of Defense to fund faculty research.

Distinguished faculty is just one of many attractions of Biological Sciences to some 450 undergraduates. Many quality students are drawn to Marine Biology because of the diverse amount of research that it offers, as one example.

Others use the courses in Biological Sciences as a springboard to professional schools or other advanced research fields.

Dr. Feminella also brings nine years of experience working with graduate students. Under his direction, the department's graduate program grew more than 100 percent, landing it second only to the College of Education in numbers. This experience will serve him well as he answers the University's challenge to increase graduate students across the board. He credits COSAM Dean Stewart Schneller with supporting that cause.

"Dean Schneller provides funds that bring students on campus to visit us from outside our region. Because of this, about 60 percent of graduate students who visit campus ultimately enroll," he says.

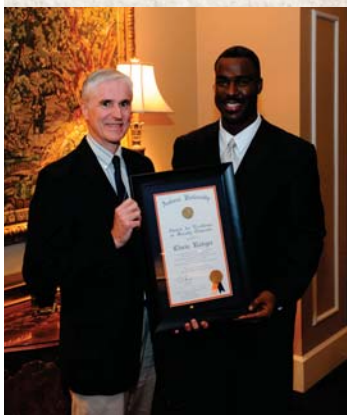
Dr. Feminella also acknowledges the dean's staff as "fully functional, making it easy to support COSAM's mission of K-12 outreach." Programs like AU Explore, YES and GUTS exist to overcome anxieties about math and science.

"Outreach is the single biggest impact we can make in K-12. We're happy to provide faculty and students to support this mission," Dr. Feminella says. "We're trying to get high school kids infected with the idea that science and math are 'cool.'"

Dean Schneller is optimistic about the department's growth under Dr. Feminella's leadership due to his focus on academics, research and outreach. "In selecting a new chair for the department, it was important to identify an individual who had participated with dedication and success in all of those levels within the department. Dr. Feminella certainly met those expectations. We look forward to his leadership and vision," Dean Schneller says.

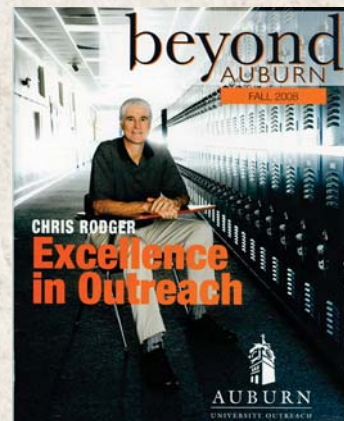
Dr. Feminella looks to a future that includes a fully mature department so that faculty can work both on-and-off campus to recruit students to grow their studies. And it is with a collaborative nature that he steps out towards that vision.

RODGER WINS OUTREACH AWARD



Pictured left is Chris Rodger, the Scharnagel Professor of Mathematical Sciences, after he received the 2008 Auburn University Award for Excellence in Faculty Outreach.

Pictured right is Rodger on the cover of *Beyond Auburn* magazine.



MERCY MEDICAL CLINIC

Inspiring COSAM Students to Serve

by Timothy Meeks

F

or a nation faced with staggering numbers related to the current economic crisis, Americans polled in the Kaiser Foundation's first tracking survey of 2009 clearly are also worried about the affordability and availability of health care. According to the survey, 53 percent of Americans say their household has cut back on healthcare in some way. Included in the cuts are: relying on home remedies and over-the-counter drugs rather than going to a doctor; not filling prescriptions and cutting pills in half or skipping doses to make their prescription last longer. The Kaiser survey further states that unemployed or individuals without health insurance are the groups most profoundly impacted and are more likely than other groups to put off medical treatment.

Fortunately, for some of the most marginalized citizens of Lee County, Ala., there is mercy from often overwhelming medical challenges: Mercy Medical Clinic. This non-profit, interdenominational Christian-based operation is run largely by volunteers and provides family medicine and dentistry to citizens who have no medical insurance and have an income less than 200 percent of the federal poverty line.

Due to its proximity to Auburn University, this predominately volunteer organization provides COSAM students an opportunity to learn while serving a worthy cause.

"At Mercy, you're exposed to all aspects of the clinic – from administration, answering the phones, pulling charts – to the real practice of medicine," says Michelle Mullin, a senior in Biomedical Sciences. "It's all important, but I've really learned a great deal on how to interact with patients by shadowing the doctors – specifically Dr. Crosby, the clinic director."

Mullin's sentiment is echoed by fellow Biomedical Sciences senior Spencer Maddox.

"By shadowing, I've seen the treatment of an illness or disease. But what has really stuck with me is how Dr. Crosby takes the time to understand the patients – both their illness and what's going on with their life," says Maddox. "Those things are often connected."

Inspired by a Grounded Physician

The man who inspires Mullin, Maddox and a host of other volunteers, is Dr. Dell Crosby, Mercy Medical Clinic founder and lead physician. Almost a decade ago, Crosby found himself troubled by the steady flow of patients through emergency rooms.

"It was a sinking feeling. We would treat the injuries or illness that brought them to the ER, but there was very little follow through after they left – and little attention to some of the root causes that brought them there," says Crosby.

A man of deep faith, Crosby decided to use the gifts he had been given and use them to help those less fortunate.



I appreciate their willingness to teach my students the true meaning of compassion and service to others. They are the best role models because they teach by example."

–Beverly Childress, Director of Prehealth Professions, COSAM

“We live in a world that is often divided by the ‘haves and have nots,’” says Crosby. “I’ve been blessed and want to use whatever gifts I have to help others who possibly haven’t shared the same blessings.”

*–Dr. Dell Crosby (right), Mercy Medical Clinic
Founder and Lead Physician*



“We live in a world that is often divided by the ‘haves and have nots,’” says Crosby. “I’ve been blessed and want to use whatever gifts I have to help others who possibly haven’t shared the same blessings.”

Nine years ago, Crosby launched Mercy Medical Clinic.

“Some of the challenges facing the less fortunate go beyond medical issues, and for a physician can present some tremendous challenges,” says Crosby. “Some of their hurdles are higher and a culmination of lack of preventative care, bad habits and environment can make our patients’ problems more complex. The physicians volunteering here have to overcome these obstacles. Fortunately we have caring people supporting us at Mercy – but we can always use more.”

Mercy and Auburn

Auburn University’s connection to the Mercy Medical Clinic does not end when student volunteers graduate. The current rotation of physicians and dentists includes COSAM alumni, many with active practices in the Lee County area. It is possible, in the near future, a former COSAM student volunteer will come full circle and return to Mercy as a physician volunteer.

“Whether I am in Auburn or somewhere else, I definitely plan to follow Dr. Crosby’s approach,” says student Spencer Maddox. “He has inspired me.”

Inspiration, for both volunteers and patients, is why Mercy Medical Clinic fills such a vital role in Lee County, Ala., and serves as a model for other communities.

“Mercy Medical Clinic provides a wonderful service to people in need in East Alabama and an excellent opportunity for students in healthcare to participate in compassionate, state-of-the-art patient care.”

*–J. David Hagan, M.D. ’65, member of the
COSAM Leadership Council*



“I thoroughly enjoyed my time volunteering because of the compassionate individuals working there and their desire to help others. Mercy Medical might not be the solution to all problems in the healthcare industry, but it’s a step in the right direction.”

*–Jackson Girardeau (left),
Junior, Biomedical Sciences*



*(left) COSAM Student
Michelle Mullin, Senior,
Biomedical Sciences, gets
real-world experience
working at Mercy Medical
Clinic.*

Geology & Geography

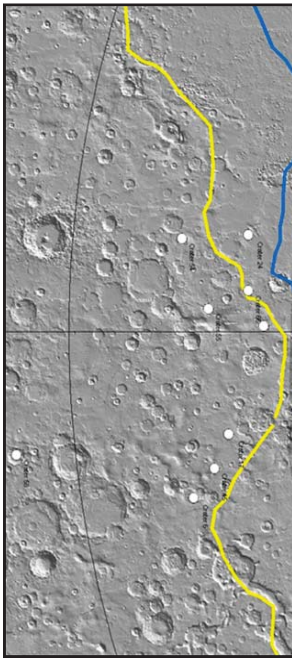
Making an Impact

Impact geology studies on Earth and Mars—particularly marine impacts—are the focus of a new planetary geology research effort led by **Dr. David King** (Geology) and **Dr. Luke Marzen** (Geography). King recently received a grant from NASA to support new scientific drilling of the Wetumpka impact crater in Elmore County, Ala. This seven-km structure is among the few well-preserved marine impact features on Earth. Marine impacts form when a comet or asteroid strikes a terrestrial ocean. King has been investigating the Wetumpka crater for around 10 years, and his related outreach activities, like the impacting body, have made quite a splash in Alabama and beyond. Investigations at Wetumpka are complemented nicely by work on marine impacts in the Chesapeake Bay area and on the northern plains of Mars. Owing to the difficulties of Martian fieldwork, the latter studies, supported by a NASA grant to Luke Marzen, employ satellite imagery. Thus far, three recent M.S. graduates of our department have completed impact geology studies at Wetumpka (**Reuben Johnson**), Chesapeake Bay (**Jennifer Glidewell**), and on Arabia Terra, Mars (**Geri de Villiers**). Other impact geology projects still in progress involve graduate students **Ashley Gilomen**, **Jamie Gore**, and **Chad Harrold**.

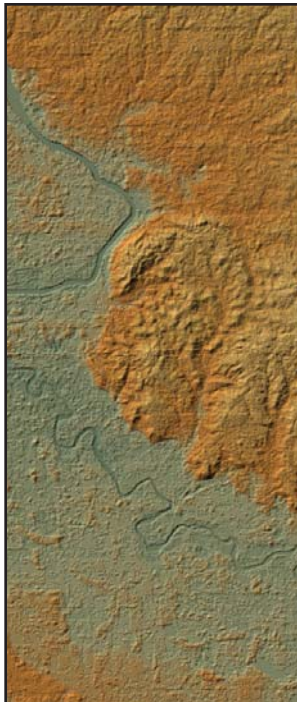
**See page 38 for more on this story.*



Chuck Savrda
Department Chairman



*Satellite imagery on
Mars.*



*Digital elevation model
of Wetumpka Crater
and adjoining areas.*

DEPARTMENT HIGHLIGHTS

Dr. Sonny Dawsey (Geography) was awarded Emeritus Professor status upon his retirement in summer 2008. Dr. Dawsey's position is being filled temporarily by visiting Professor **Dr. Bill Bailey**, a former member of the old Department of Geography. The position vacated earlier with **Dr. Bob Cook's** retirement was filled in August 2008 by **Dr. Haibo Zou**, a new assistant professor whose research focuses on Uranium-series isotope disequilibrium studies of igneous processes, quantitative geochemical modeling, and petrogenesis and chemical geodynamics of mid-ocean ridge basalts.

A new MS program in applied geography has been approved by ACHE. The department will admit its first students into the program during the 2009-2010 academic year.

Dr. Phil Chaney received a Quick Response Research grant from the Natural Hazards Center. As part of his geographic hazards research, Dr. Chaney is using this grant to assess public preparedness and response to tornado disasters.

Dr. Bill Hames, while continuing to refine the Auburn Noble Isotope Mass Analysis Laboratory, developed the department's first distance education class in geology. Mineralogy and Optical Crystallography is now available from afar.

Dr. Josh Inwood received an Auburn University Competitive Research grant to explore grassroot organizations and their use of the community concepts of Dr. Martin Luther King, Jr.

Dr. Luke Marzen joined an interdisciplinary team assembled to address sustainable watershed management. Funded by the new Auburn University Water Resources Center, Dr. Marzen will focus his efforts on assessing trends in land use, community planning, landscape design and associated impacts on water quantity and quality in the Tallapoosa River basin.

Dr. Jim Saunders served as an invited Distinguished Lecturer at the Ralph Roberts Gold Research Institute, University of Nevada-Reno.

Dr. Mark Steltenpohl and graduate student **Thomas Key** recently discovered in arctic Norway rare faults that record paleoseismicity. Dr. Steltenpohl is now collaborating with **Dr. David Moecher** (University of Kentucky) in an attempt to quantify the focal depths and other aspects of these "fossilized" earthquakes. Dr. Steltenpohl is also working with **Dr. Marzen** to develop GIS-based geologic maps and protocol to facilitate the exploration for industrial stone resources in the Southeast. This work is being completed in association with the Auburn University Environmental Institute and NCAT, and with support from a new grant from Vulcan Materials.

Dr. Ashraf Uddin, who continues his NSF funded projects on sediment eroded from the Himalayas, presented a talk on the stratigraphy and petroleum potential in Dhaka, Bangladesh, as an invited guest of Bangladesh Petroleum Exploration, Inc. and Petrobangla.

Drs. Lorraine Wolf and **Ming-Kuo Lee** received new funding from the USGS National Earthquake Hazard and Reduction Program to support their research on hydrological changes caused by large earthquakes. In collaboration with **Dr. A.J. Meir** (Mathematics and Statistics), they are exploring mechanical coupling between fluid pressure and crustal deformation.

Faculty and students continue to be recognized for their research, teaching, and service efforts. **Dr. Toni Alexander** was a recipient of an Auburn University Diversity Research Award, **Dr. Ming-Kuo Lee** received the COSAM Outstanding Faculty Research Award, and **Dr. Chuck Savrda** along with former faculty member and journal co-editor **Dr. Bob Gastaldo** were acknowledged with Distinguished Service Awards from SEPM. **Wes Buchanan** earned one of only two COSAM Outstanding GTA awards, and **Kelli Hardesty** was named one of Auburn's Top 10 Masters Students. Graduate students **Lee Beasley** and **Nathan Layfield** won Alabama Geological Society scholarships, and **Shahadat Hossain** took third prize in the 11th annual AAPG-SEG Student Expo poster competition. **Ray Tichenor** was the recipient of an Auburn Undergraduate Research Fellowship for his studies of encrusting foraminifera on San Salvador, Bahamas, with advisor **Dr. Ron Lewis**.

Alumnus **Robert S. (Bob) Fousek** (MS '96) was presented with the department's third Outstanding Alumni Service Award.

As a final note, the department is pleased to announce that several new scholarship opportunities are available to undergraduate Geology and Geography majors, thanks to a donation made by **Vulcan Materials**.

Physics

Auburn Physics:

It's

Everywhere

“No matter where you look, locally, nationally or internationally, you see the impact of Auburn Physics,” Dr. Joe Perez says. “During the past year and continuing into the future, Auburn faculty have served, contributed to, and participated in organizations, committees, and research projects from Auburn to all regions of the world.”

DEPARTMENT HIGHLIGHTS



Joe Perez
Department Head

Dr. Marllin Simon is president of the Alabama Section of the American Association of Physics Teachers.

Dr. Jianjun Dong received a new three-year NSF grant to work on an interdisciplinary mineral physics project focused upon the thermal transport properties of minerals

at high pressure.

Dr. Michael Fogle, a new assistant professor in experimental atomic physics, has collaborative efforts with the atomic physics group at Oak Ridge National Laboratory and the molecular physics group at the CRYRING storage ring facility at Stockholm University in Sweden.

Dr. Stephen Knowlton completed a two-year term as president of the University Fusion Association. He participated in the Department of Energy Fusion Energy Science Advisory Committee and made several visits to Capitol Hill. He is also chair of the National Stellarator Coordinating Committee, and in his spare time contributed to research on a stellarator at the University of Wisconsin.

Dr. Allen Landers continues his research in fundamental atomic and molecular interactions at the Lawrence Berkeley National Laboratory. In addition to becoming an associate professor and receiving tenure, he has been nominated to sit on the University Research Advisory Committee.

Dr. Yu Lin has hosted two Chinese graduate students supported by the Chinese government. She continues successful scientific collaborations with Princeton Plasma Physics Laboratory and the University of Alabama, Huntsville. She also serves as the plasma physics coordinator for the Overseas Chinese Physics Association.

Dr. Stuart Loch, in addition to having a new baby, supervised an Auburn graduate student doing research at the NASA Goddard Spaceflight Center during the summer. He also gave invited presentations at professional conferences in Dallas, Tex. and Monterey, Calif.

Dr. Minseo Park is a collaborator in a successful Small Business Independent Research proposal to the Missile Defense Agency with Kyma Technologies, North Carolina.

Dr. Michael Pindzola spearheads a number of successful collaborations funded by the Department of Energy that include physicists from Europe and the USA. Through his efforts, Auburn continues to be a university member of the International Atomic Data and Analysis Structure (ADAS) Consortium headquartered in Strathclyde, England.

Dr. Francis Robicheaux is an author or co-author on 17 research papers with over 40 different co-authors from four U.S. groups and four European groups. He is also a member of the ALPHA collaboration that is attempting to make and trap the antimatter version of hydrogen at the CERN accelerator facility in Switzerland.

Dr. Edward Thomas has established successful collaborations in dusty plasma research with the Naval Research Laboratory, the University of Iowa, and West Virginia University. He is a member of the Department of Energy's Fusion Energy Sciences Advisory Committee and participated in DoE workshop to offer guidance and help set priorities for providing increased support for low temperature plasma

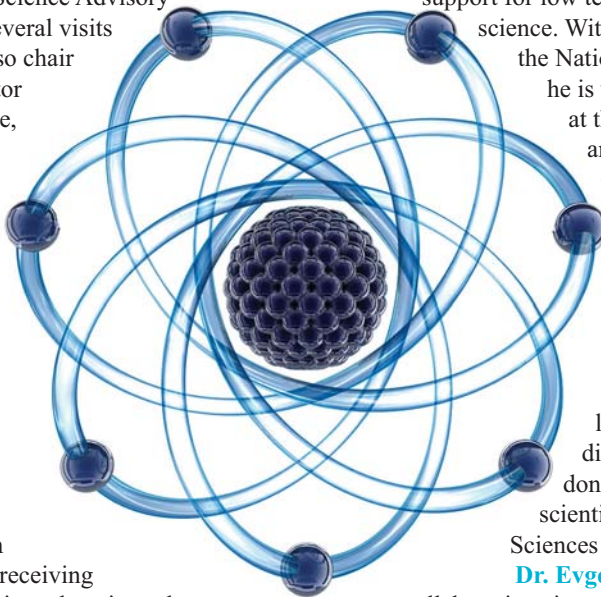
science. With encouragement from the National Science Foundation, he is working with scientists at the University of Iowa and the University of California, San Diego, to begin the development of a new magnetized dusty plasma facility.

Dr. Chin-Che Tin has applied for a non-provisional patent based upon work on low temperature dopant diffusion in silicon carbide done in collaboration with scientists at the Academy of Sciences of Uzbekistan.

Dr. Evgeny Oks continues collaborations in magnetic fusion with the group at General Atomic, San Diego, Calif., and in laser plasmas with a team from Paris, France.

Dr. Michael Bozack maintains strong collaborative ties with the National Science Foundation Center for Advanced Vehicle Electronics in the Auburn Samuel Ginn College of Engineering with 22 industrial members.

Dr. John Williams' leadership of the wide band gap semiconductor research effort has led to new industrial support from Dow-Corning and General Electric Global Research along with participation in Auburn's Natural Resource Management and Development Institute. His group participated in an invitation-only workshop sponsored by the Army Research Laboratory, Air Force Weapons Laboratory, and the Office of Naval Research.



Biological Sciences

AUBURN UNIVERSITY ABROAD

Dr. Nanette Chadwick

continues her participation in the Auburn University Abroad Program in Jordan, part of a National Science Foundation (NSF) program providing international research experiences to Auburn graduate students and undergraduates. Students are paired with scientists from Auburn and the Marine Science Station in Aqaba, Jordan, where they study metabolic interactions between giant sea anemones and symbiotic anemonefish on Red Sea coral reefs. These species are among the most conspicuous and recognizable symbiotic species on coral reefs, particularly in the northern Red Sea.

This program provides a unique opportunity to combine the expertise of U.S. and Jordanian scientists in a synergistic effort to measure population dynamics and physiological mechanisms of interaction in these important organisms. Auburn's student-based field work consists of marking sea anemones and symbiotic fish and collecting data on abundance, patterns of symbiotic association, and population structure. Laboratory work includes measurements of respiration and photosynthesis of anemones to determine effects of fish on host metabolism. Students also are developing population models based on change in anemone and anemonefish populations. Auburn students develop scientific hypotheses, design individual research projects, and analyze and present their results orally and in written form.

This project increases understanding of the population dynamics of ecologically important marine species and their potential for recovery following disturbances of coral reefs. It also enhances environmental awareness, cultural understanding, and the international outlook of student participants, and exposes them to the culture of an Arabic Muslim country in a politically important region of the Middle East.

(Pictured right are some of Dr. Chadwick's student divers.)

DEPARTMENT HIGHLIGHTS



Jack Feminella
Department Chairman

Dr. Jack Feminella was appointed chair of Biological Sciences in October. Feminella is an aquatic ecologist who studies the influence of environmental factors on stream communities. **Dr. Mary Mendonca** was elected new graduate program officer in October. Dr.

Mendonca is a vertebrate reproductive endocrinologist and physiological ecologist.

Microbiologist **Dr. Paul Cobine** joined the department as a tenure-track assistant professor. Dr. Cobine's research area relates to understanding the biochemical pathways for recruitment of metals into cellular mitochondria of the yeast *Saccharomyces cerevisiae*. This research has applications in characterizing pathophysiological states for several human diseases.

In collaboration with scientists from the University of Washington, **Dr. Ken Halanych** was awarded a three-year NSF grant to study the evolution of hemichordates, which includes poorly known marine acorn worms and their relatives. These groups have long been considered important in understanding the basis for evolution of the Chordata, the phylum that includes humans. Dr. Halanych's lab will use advanced DNA sequencing and computational approaches to evaluate hypotheses of chordate origins.

Dr. Raymond Henry was among the Auburn faculty awarded a five-year grant from the NSF EPSCoR program. This award supports the continuation of the Center for Cellular and Environmental Signal Transduction, a molecular and imaging core facility that is used by researchers state-wide in all areas of molecular biosciences.

In collaboration with colleagues from the Savannah River National Laboratory, **Dr. Jack Feminella** was awarded a four-year DoE/DoD/EPA SERDP natural resources grant to develop empirical models describing relationships between land use and stream fish and macroinvertebrate communities in coastal plains watersheds of Georgia, and North and South Carolina.

Dr. Sharon Roberts was appointed Interim Writing Program Administrator on Auburn's Writing Initiative. Dr. Roberts is chairing a



national search for a full-time Writing Program Administrator and working with faculty across campus to expand writing opportunities for Auburn undergraduates.

Dr. Robert Locy returns to his departmental duties in March 2009 after serving a year as chair of the Auburn University Faculty Senate.

Dr. James Barbaree has been named Biological Sciences' fourth Scharnagel Professor. Dr. Barbaree joins **Drs. Marie Wooten, Ray Henry** and **Geoff Hill** as former Scharnagel scholars within the department.

Dr. Robert Boyd was awarded COSAM's Outstanding Advisor and **Dr. Debbie Folkerts** was named one of Auburn's Outstanding Faculty by Auburn's Student Government Association.

Rusty Ligon and **Amy Skibiell** were awarded a Research Grant-in-Aid from the Sigma Xi Scientific Research Society. **Shanna Hanes** received an Honorable Mention for her proposal to the NSF Graduate Research Fellowship Program. Graduate students **Johanna Cannon, Ivey Ellis, Emily Hartfield, Shanna Hanes, Kevin Kocot, Molli Newman,** and **Kathy Morrow** each were awarded a Research Grant-in-Aid from Auburn's Graduate School. **Brian Helms** was recognized as one of the 10 outstanding Auburn University Doctoral Students by Auburn's Graduate Council.

Johanna Cannon and **Camille Okekpe** won awards for Best Student Poster at the Society for Integrative and Comparative Biology. **Kathleen Morrow** was awarded a NOAA Nancy Foster Ph.D. Scholarship and a Smithsonian Pre-Doctoral Fellowship. Morrow also won the 2008 Dean's Research Award. **Susan Reithel** was awarded a Graduate Dean's Fellowship from Auburn's Graduate School. **Alexis Janosik** was named Outstanding GTA in COSAM.

Jessica Cofield was named Outstanding GTA in Biological Sciences. **Anne-Marie Hodge**, a senior in Conservation and Biodiversity and also a recent Goldwater Scholar, was named Outstanding President of the Year by the Auburn Student Government Association.

DEPARTMENT HIGHLIGHTS



Vincent Ortiz
Department Chairman

Assistant Professor **Susanne Striegler** received a five-year National Science Foundation Career Award for her work on macromolecular glycosidase mimics. The results of this study will provide the foundation for novel macromolecular catalysts as an alternative to conventional syntheses and enzymatic approaches, and open new directions toward the synthesis of glycoconjugates with prospective pharmacological effects. Dr. Striegler

joins Associate Professor **Holly Ellis** as a recent recipient of this prestigious award.

The American Chemical Society's Molecule of the Week for March 31, 2008, tetraborane, has brought enhanced recognition to an article published recently by Professor **Michael McKee** and his recently graduated doctoral student, **Sayin Hasan**.

Dr. Christopher Easley, a former postdoctoral fellow at Vanderbilt University, joined the faculty as assistant professor in August, 2008. Dr. Easley received his Ph.D. degree at the University of Virginia and his B.S. degree at Mississippi State University. His interests in analytical chemistry include microfluidics, fluorescence microscopy, electrophoresis and the application of these techniques to the molecular biology of intercellular communication. Part of Dr. Easley's dissertation research will soon be published in the highly prestigious journal *Nature Physics*.

Kathryn Milly West received the 2008 Southeast Regional Member Award of the American Society for Clinical Pathology at a ceremony in San Francisco on February 28. This award recognizes exceptional ASCP members who have promoted and enhanced the field of laboratory medicine and who have rendered distinguished service in the Southeast. Ms. West is the Department's principal instructor and advisor in its Laboratory Technology and Medical Technology baccalaureate programs and also is the Department's Outreach Coordinator.

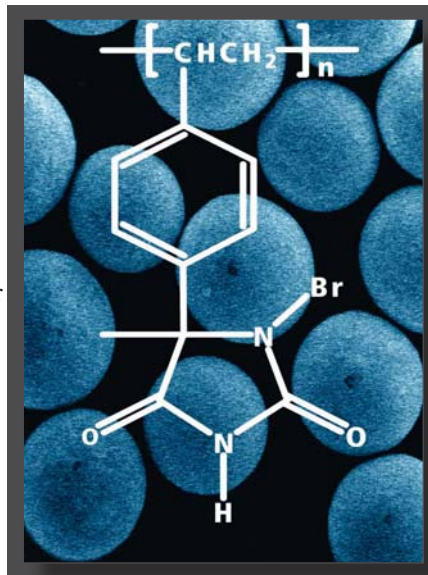
Assistant Professor **Orlando Acevedo** has been awarded one of four 2008 Hewlett-Packard Outstanding Junior Faculty Awards. Winners are selected by the American Chemical Society's Computational Division. Dr. Acevedo received his award at the ACS's national meeting in New Orleans in April, 2008.

Two newcomers with recently earned doctorates, **Dr. Joonyul Kim** and **Dr. Mohan Bharara**, have joined the department's general chemistry instructional team.

After many years of outstanding service and teaching, **Mr. Thomas Carrington** is retiring from his current position as laboratory manager for analytical, physical and inorganic undergraduate laboratory courses.

Ruth W. Molette, Professor, and Chairman **Vincent Ortiz** completed a three-year term on the Editorial Board of the *Journal of Chemical Physics*. Dr. Ortiz continues to serve on the Editorial Board of the *International Journal of Quantum Chemistry*.

Frontiers in
FUNCTIONAL POLYMERS
A SYMPOSIUM IN HONOR OF PROFESSOR
S. D. WORLEY



April 30, 2008 in Auburn, Alabama

A research symposium sponsored by
the College of Sciences and Mathematics
at Auburn University

www.auburn.edu/cosam/symposium



The 2008 Dead Day Symposium featured guest lecturers (from left): Dr. Kenneth R. Carter, associate professor of the polymer science and engineering department at the University of Massachusetts, Amherst; Dr. Kenneth J. Wynne, professor in the department of chemical and life science engineering at Virginia Commonwealth University; Dr. Thomas H. Epps, III, assistant professor in the department of chemical engineering at the University of Delaware; Dr. Jeff Williams, senior vice president and chief technology officer for HaloSource Incorporated; and Dr. Gang Sun, professor of polymer and textile chemistry in the division of textiles and clothing at University of California, Davis

Chemistry & Biochemistry

Frontiers in Functional Polymers: A Tribute to Dr. Worley



The College of Sciences and Mathematics hosted the sixth annual Dead Day Symposium on April 30, 2008 in the Sciences Center auditorium. This year's topic was "Frontiers in Functional Polymers" and was a tribute to Professor **Dave Worley** (pictured above) and his far-reaching influence through research, teaching and practical application in the field of functional polymers. The one-day symposium included talks such as "Patterning of Electronic and Optical Organic Materials," "Halamine Chemistry: Polymeric Cyclic to Polymeric Acyclic Structures," and "Taking a Functional Polymer from the Benchtop to the Consumer Marketplace: A Commercialization Odyssey." The symposium brought together leading scientists from around the United States and emphasized the interdisciplinary nature of sciences and mathematics.

Mathematics and Statistics

Auburn University Mathematics Students Benefit from Fulbright Classroom Instruction

Since 1946, Fulbright scholars have crossed the waters to participate in the international education exchange program designed to primarily enhance lecturing and advanced research on the hosts' campuses. In 2008, COSAM had the unusual benefit of not only hosting Fulbright Scholar Cristina Fernandez of Spain for her research on coding theory, but also of welcoming her teaching skills in the classroom.

"Having Dr. Fernandez offer an honors calculus course in the College is a rare opportunity for our freshmen to not only learn in a cross-cultural setting, but to experience an internationally acclaimed and talented professor in the classroom," says COSAM Dean Stewart Schneller.

COSAM Professor of Mathematics and Statistics, Kevin Phelps, was instrumental in arranging this unique opportunity. "I believe that international education exchange is at the heart of the Fulbright Program," Dr. Phelps says. "Being involved with students in a small class is one of the best ways to promote mutual understanding and respect for different cultures."

Dr. Fernandez, whose yearlong visit to Auburn began in May 2008, teaches a class that includes 25 freshmen. "They are very motivated and do well," she says. "In Spain, I teach much larger classes of 40-80 students, sometimes 100, who are studying to be computer engineers. They are not always as motivated as my Auburn honors students."

Fernandez has served since 2003 as an assistant professor at her alma mater, the Autonomous University of Barcelona, where she teaches computer engineering. She earned a bachelor's degree in mathematics in 2000, a master's degree in computer science in 2003 and a doctorate degree in computer science in 2005. Fernandez has published eight articles in professional journals and has presented at 12 national and international conferences.

Each year the U.S. Department of State's Visiting Fulbright Scholar Program selects 800 individuals to study in more than 140 countries. Funding is mainly from an annual appropriation from the U.S. Congress, supplemented by participating governments and host institutions through cost-sharing and indirect support, such as salary supplements, tuition waivers and university housing. Phelps, who serves as the Fulbright program's sponsoring faculty associate for Fernandez, says it is a fairly rigorous process of application and selection.

At Auburn, Fernandez is continuing her research on coding theory, which is a branch of mathematics concerned with accurately transmitting data signals from one location to another. It involves many different disciplines – electrical engineering, computing and mathematics – coming together to successfully recover these signals.

Dean Schneller describes Fernandez's participation on campus as a "unique coalescence of several University priorities: attracting noted scholars, internationalization of our classroom offerings, enhancing the honors college, and placing highly regarded academicians in the freshman experience."



Cristina Fernandez (left), a visiting Fulbright scholar from Spain, works with Auburn student Rachel Brooks. Fernandez teaches honors calculus and is conducting coding theory research during her one-year visit to Auburn.

DEPARTMENT HIGHLIGHTS



Michel Smith

Department Chairman

Drs. Overtoun Jenda and **Peter Johnson** organized the NSF-funded summer Research Experience for Undergraduates in Algebra and Discrete Mathematics (REU) program. The 2008 program, held at Auburn University, was the sixth such program. Joint papers with program participants have been submitted to research journals.

Dr. Chris Rodger received the Auburn University Outreach Award.

The First Istanbul Design Theory and Combinatorics Conference in honor of the 70th birthday of **Dr. Curt Lindner**, was held at Koc

University, Istanbul, June 15 to 21, 2008. **Drs. Dean Hoffman** and **Chris Rodger** were invited speakers; many of Dr. Lindner's students participated.

The 42nd Annual Spring Topology and Dynamics Conference in Milwaukee included a plenary talk by **Dr. Piotr Minc** and a semi-plenary talk by **Dr. Gary Gruenhagen**; additional invited speakers included faculty and graduate students from the department.

The department continued its involvement in the \$9 million NSF supported TEAM-Math grant. The project is near the end of its five-year program. The last full summer teachers' workshop was held in 2008; in summer 2009 a half-size workshop is planned.

The Department of Mathematics submitted a successful proposal to the National Center for Academic Transformation (NCAT) in the Colleagues Committed to Redesign (C2R) program as part of the mathematics, statistics and computer science cluster. The goal of the council is to support and encourage colleges to redesign courses in order to decrease costs and increase student success rates and learning. The proposal was based on the department's online computer-assisted courses. The department redesigned the Pre-calculus 1120 course by expanding the use of computers in the classroom as the main method of content presentation. The project uses graduate teaching assistants and undergraduate teaching assistants to help in the required and optional student labs. The first pilot of the project was run in fall 2008.

Faculty received numerous invitations to attend international conferences or workshops. These included invitations to China, Italy, Spain, Thailand, Turkey, Hungary, New Zealand, Australia, Mexico, Canada, Pakistan, India, the Netherlands, Brazil, as well as numerous international conferences in the United States.

The Department of Mathematics celebrated book publications by **Drs. Wenxian Shen**, **Chris Rodger**, and **Curt Lindner** including: "Design Theory," second edition, by C. C. Lindner and C. A. Rodger; and "Spectral Theory for Random and Nonautonomous Parabolic Equations and Applications," by Wenxian Shen and Janusz Mierczynski.

Dr. Erkane Nane, a specialist in the area of probability theory as well as **Dr. Yangzhao Cao**, a specialist in numerical analysis, have both joined the mathematics faculty at Auburn.


Dr. Krystyna Kuperberg became the director of the Women in Science and Engineering program.

In January 2008, **Dr. Andras Bezdek** led the department's first Math-a-thon mathematics contest for high school students from schools across Alabama. The Math-a-thon is now an annual event and the second competition was held in January 2009.

Drs. Geraldo de Souza and **Han Yongsheng** organized the NSF-sponsored, 23rd Mini-Conference in Harmonic Analysis and Related Areas held Nov. 21 and 22, 2008.

COSAM: Reaching *Kids* of All Ages

In 2000, the College of Sciences and Mathematics formally recognized the Department of Outreach as an integral part of the college's mission. Since that time, the outreach efforts of COSAM have steadily grown. In 2008, we actively supported 14 different K-12 programs and community based programs (42 program-days), and hosted over 10,000 visitors on campus, with countless more impacted through our traveling programs: AMSTI and Science in Motion, in particular. In response to this positive growth, the unit hired two additional full-time employees in 2008, an assistant director of outreach and an administrative assistant. This year, instead of highlighting a single program, the Outreach Unit would like to share the extensive list of programs that COSAM supports each year.



Biological Sciences
Professor Dr. Craig Guyer, gives a lesson on reptiles using live animals at AU Explore Open House Day.

Elementary School

Getting Under The Surface (GUTS)
Science Olympiad
Spring Youth Experiences in Science (YES)
Summer YES Camp

Middle School/Jr. High School

AU Explore Open House Day
BEST Robotics (Boosting Engineering, Science and Technology)
Daughters and Mothers Exploring Science (DAMES)
GUTS
Intel Science and Engineering Fair
Science Olympiad
Fall YES
Summer YES Camp

High School

BEST Robotics
Intel Science and Engineering Fair
Math-a-thon Competition
TEAMS (Tests of Engineering Aptitude, Mathematics & Science)
Women's Leadership Symposium

Teacher Training

Alabama Math Science and Technology Initiative (AMSTI)
BEST Robotics
Science in Motion
Advanced Placement Summer Institute
TEAM-Math

For more information on these programs and our outreach efforts in general, visit www.auburn.edu/cosam/outreach.

Community Programs

GUTS
BEST Robotics
DAMES
AU Explore Open House Day

Teen Survives Plane Crash, Discovers Purpose

by Christy Kyser Truitt



The morning of June 19, 2003, dawned expectantly over the shores of St. Simons, Ga. COSAM student Rebecca Dobson, then a high school sophomore, joined her maternal grandparents, Jack and Margie Mills, and sister Elise for a trip to Chicago, Ill. The Mills, both seasoned pilots, were stretching the legs of their new six-passenger Piper Saratoga with plans to refuel in Nashville, Tenn., before traveling the final stretch to Chicago.

But just above Scottsboro, Ala., the routine flight turned tragic. Despite the efforts of Rebecca's grandparents, the plane crashed into a grove of trees following loss of engine power. Sadly, the Mills did not survive. Elise received minor injuries, while Rebecca was airlifted to Huntsville Hospital in critical condition.

Critical condition in laymen's terms meant that most of the bones on the right side of Rebecca's face were broken and her jaw was shattered.

"My first memory was during the MRI. Not that I remember much about that. I just remember waking up while going through the machine," Rebecca, now a sophomore in pre-dentistry, says. "I have images of the helicopter ride and other things, but the main thing I remember is waking up and my sister being there."

Rebecca's mother, Angela Dobson, was home with her youngest daughter Addie when the telephone rang shortly after noon. "It was Elise. She was so hysterical that I thought she was joking," Angela recalls, adding that Elise had dreamed of a plane wreck two days prior.

But this was no joke. Elise was calling from the borrowed cell phone of EMS worker, Milton Potter. Angela recalls asking him about her other daughter, Rebecca, only to have Potter reply, "What other daughter?"

"I could hear the sirens in the background, and that's when I knew this was no joke," Angela recalls. It would

be seven hours before Angela and husband Lee arrived in Huntsville to hear the full diagnosis of the situation. The couple then received some good news.

"Out of the five oral and maxillofacial surgeons in the state of Georgia, two lived in St. Simons," Angela says. "We airlifted Rebecca home, and Dr. Jeff Capes met us at the airport."

Capes got to work on Rebecca immediately. In the first surgery that lasted eight hours, he replaced the original stitches and wired her jaw shut. Eight days later, Capes rebuilt the eye sockets, cheeks, chin, and nose using titanium rods. Angela, equipped with humor that only hindsight provides, recalls the good fortune that Rebecca had most of her teeth knocked out. "We were able to feed her more than your typical mouth that's wired shut because she didn't have teeth in the way."

Once her facial infrastructure was stabilized, Rebecca took a step on the road to recovery. She even began to cheer at the Frederica Academy soccer games despite her missing teeth. But, in typical teenage fashion, a looming driver's license photo prompted the teenager to inquire about dental implants.

"I had been wearing what's known as a 'flipper,' which is basically a retainer with teeth. But I knew I didn't want to wear that for the next 70-or-so years," Rebecca says. The Dobsons approached Capes about dental implants. Capes recommended a bone graph using partials from Rebecca's hip bone in order to ratchet up her damaged oral structure.

"The bone graph didn't take," Rebecca laments, adding it was the first time in the entire process she got depressed. "I mean, I had been through so much with what I thought was such a great attitude. And then to be told I could never have teeth was really just too much."

Rebecca's father says that although she suffered setbacks along the way, his daughter never wavered in her positive attitude. "Rebecca always attacks things head-on. She's never been scared of anything," Lee says. "But something like this definitely changed our lives. No doubt, it made it more precious."

It was the next step in the journey that would change Rebecca's future.

Family dentist Tom Sayer, D.M.D., discovered the work of two Charleston dental surgeons, J. Daulton Keith, D.D.S., F.I.C.D. and James A. Rivers, D.M.D., M.H.S.

Rivers is a fellow of the International College of



“I have images of the helicopter ride and other things, but the main thing I remember is waking up and my sister being there.”

-Rebecca Dobson

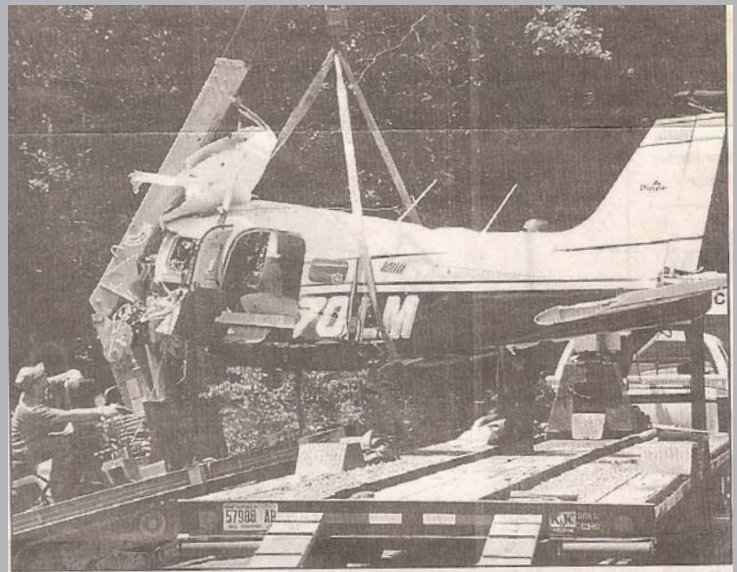
Dobson on February 12, 2009, almost six years after the crash.

Dentists as well as the American College of Dentists. His special interests in patient treatment include complex oral rehabilitation procedures and dental implants. Keith serves on the faculty of the Medical University of South Carolina, College of Dental Medicine, as a clinical professor in the division of graduate periodontics while maintaining an active private practice.

During those months of tissue grafting and esthetic-enhancing procedures, Rebecca discovered a passion for dentistry, inspired by the men who worked to return her to life.

“All my doctors inspired me to become a dentist. I’m excited about dental school,” Rebecca says, admitting to a childhood fear of the dentist. “I was so scared of him (Sayer). But it’s hard now to be scared of someone who does so many good things for you.”

For a young woman who had “no clue what (she) wanted to do (in her life),” Rebecca transformed a life-threatening situation into a life-altering decision. She feels her grandparents have always been “up there” taking care of her by putting the right doctors in her path. Now, she looks forward to taking care of others as a pediatric dentist.



David Brewer/Huntsville Times

A crew from the National Transportation Safety Board investigates a single-engine plane that crashed at the Scottsboro Airport on Thursday killing two and injuring two others.

(above) A photo, courtesy of David Brewer, that appeared in the *Huntsville Times* newspaper on June 21, 2003 showing the airplane wreckage.

(below) Today Dobson lives a normal college student’s life, filled with good friends and of course, lots of study.





COSAM LEADS IN PHI KAPPA PHI SELECTIONS

The Honor Society of Phi Kappa Phi is the oldest and most selective academic honor society dedicated to the recognition and promotion of academic excellence in all fields of higher education. More than one-million members have been inducted since its founding in 1897. There are currently more than 100,000 active members worldwide.

The Auburn University Chapter was chartered on May 15, 1914, and became the 13th chapter of the Society.

At the December 2008 Initiation and Awards Ceremony for the Auburn University Chapter of The Honor Society of Phi Kappa Phi, College of Sciences and Mathematics students led in the number of inductees in several categories:

OUTSTANDING FRESHMAN

Lyndsey M. Almon	Katelyn A. Pembroke
Griffin S. Collins	Meagan E. Pilkerton
Stephanie J. Cox	Jaron D. Raper
Brianna Dailey	Mills A. Riddick
Matthew J. Donaldson	Ashlyn R. Seeley
Morgan G. Hull	Mary C. Stroud
Jon M. McDonald	Cameron A. Welch
Laura L. McLendon	Dana K. Woods
Christopher S. Mills	Benjamin J. Woolnough
Megan E. Obert	Lauren M. Wortendyke

SOPHOMORE WOMAN

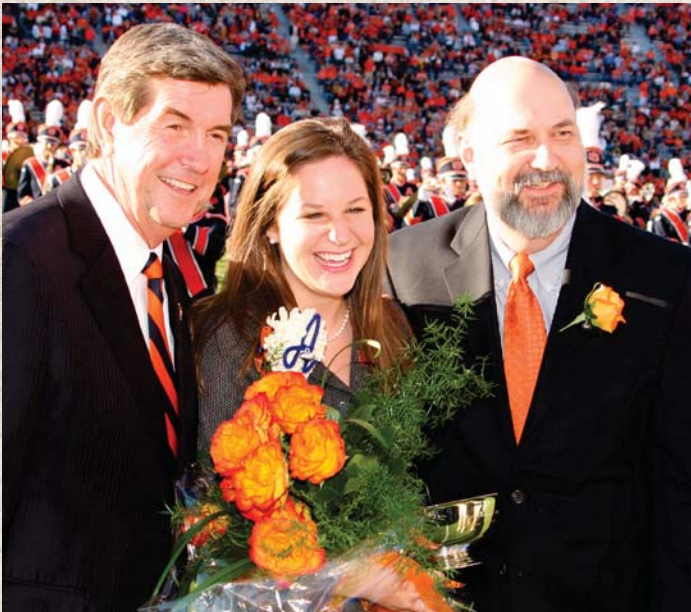
Nadia N. Bhuiyan	Carolyn A. Kuhn
Kristin E. Courtney	Lauren R. Ulrich
Lauren E. Ketron	Katheryn A. Walker
Jessica N. Williams	

SOPHOMORE MAN

Joseph R. Chaffee	Patrick D. Llewellyn
Daniel J. Hollis	Benjamin M. Motz
Robert A. Jefferson	Alexander Zakjevskii

STUDENT HIGHLIGHTS

HOMECOMING QUEEN SUPPORTS SAFETY, AWARENESS



Meredith Gaston, a senior in biomedical sciences, was crowned Miss Homecoming during the halftime festivities at Jordan-Hare Stadium on Nov. 8, 2008. The student body elected the Montgomery, Ala., native from a field of five candidates.

“Being chosen to represent the student body as Miss Homecoming has been the most humbling experience. I have made so many new friends during the week, while being supported and encouraged by those I’ve known for years,” Gaston says. “It’s been such a blessing, and I am so thankful.”

Gaston ran on a platform of supporting awareness and increasing participation in the AU Alert System. Gaston is also Panhellenic president; Cardinal Key vice president; and a member of the Omicron Delta Kappa honor society and Alpha Gamma Delta sorority. Gaston cites the College of Sciences and Mathematics as a springboard to law school where she plans to pursue a career in patent law.

“I have learned so much from the classroom, but even more from the (COSAM) people that I have been surrounded by,” the COSAM Leader says. “I look forward to many years of giving back to my university as well as my college.”

COSAM STUDENT RECEIVES GOLDWATER SCHOLARSHIP, SGA PRESIDENTIAL AWARD

Auburn University student Anne-Marie Hodge of Chattanooga, Tenn., was awarded a Barry M. Goldwater Scholarship. Hodge is majoring in Zoology in COSAM, as well as seeking a minor in Anthropology.

The Goldwater Scholarship and Excellence in Education Program was established by Congress in 1986 to honor Sen. Barry M. Goldwater. The purpose of the Goldwater Foundation is to provide a continuing source of highly qualified scientists, mathematicians, and engineers by awarding scholarships to college students who intend to pursue careers in these fields.

Hodge, who excels academically at Auburn University, is also active outside the classroom and is a founding member of the Society for Conservation Biology (SCB) at Auburn University. One of the society’s initiatives, spearheaded by Hodge, is the Tigers for Tigers conservation campaign. “Ms. Hodge has a passion for discovery and learning from her discoveries,” COSAM Dean Stewart Schneller says. “She enjoys sharing what she learns with others and instilling in them a curiosity to learn for themselves.”

For her work as president of the Society for Conservation Biology, Hodge received the Auburn University Student Government Association’s President-of-the-Year award.

“Out of all the activities I’ve done and endeavors I’ve undertaken here at Auburn, the SCB is the accomplishment that is nearest and dearest to me, so this award means much more to me on a personal level than any scholarship,” Hodge says. “I couldn’t ask for a better group of faculty and students to help me. None of this would have been possible without the support of the department and the amazing cohort of students that I am lucky to be a part of.”

Following graduation from Auburn, Hodge plans to attend graduate school and pursue a career as a research biologist and university professor.



ALUMNI

Updates



ASTRONAUT HONORED FOR LIFETIME OF ACHIEVEMENT

Hank Hartsfield (Physics '54), the 2007 College of Sciences and Mathematics Distinguished Alumnus, was recognized by the Auburn Alumni Association with a lifetime achievement award. This prestigious distinction was established in 2001 to honor extraordinary accomplishments by members of the Auburn family.

After graduating from Auburn, Hartsfield began graduate school at Duke University, but was called into active duty a year later by the Air Force. Following a tour in Bitburg, Germany, Hartsfield was selected for the USAF Test Pilot School. He graduated in 1965 and remained as an instructor until October 1966 when he was selected as a military astronaut on the Manned Orbiting Laboratory (MOL) Program. The program was canceled in 1969, and he was assigned to NASA as an astronaut. Prior to joining NASA he earned an M.S. in Engineering Science from the University of Tennessee.

Hartsfield held various positions with the Astronaut Office, most significantly providing the pilots input on the development of the space shuttle entry flight control system. Also while at NASA, he piloted Columbia's fourth and final orbital flight test in June 1982, commanded the first flight of the Discovery in August 1984, and commanded Challenger on the German D-1 Spacelab mission in October 1985. Hartsfield also held management positions at the Johnson Space Center, NASA Headquarters and Marshall Space Flight Center. Hartsfield retired from NASA in 1997 and joined Raytheon, serving as vice president for Aerospace Engineering Services in Houston, Tex. He retired from Raytheon in April 2005.

Hartsfield has received numerous awards and honors throughout his career including the General Thomas D. White Space Trophy (1974), NASA DOD Distinguished Civilian Service Award (1982), an Honorary Doctor of Science from Auburn University (1986), Alabama Aviation Hall of Fame (1983), and Astronaut Hall of Fame (2006). Most recently, Hartsfield was elevated to Fellow in the Society of Experimental Test Pilots (2006).

The Auburn Alumni Association Lifetime Achievement Award recognizes recipients for outstanding achievements in their professional lives, personal integrity and stature, and service to the University. Recipients of Lifetime Achievement Awards are selected by a committee of Auburn administrators, trustees, faculty and alumni. Hartsfield was joined at a March 7 banquet by fellow 2009 recipients: longtime University of Georgia football coach Vince Dooley '54 of Athens, Ga.; nuclear energy specialist Oliver Kingsley Jr. '66 of Birmingham; and battle tank developer Phil Lett '44 of Southfield, Mich.

MULLEN NAMED CEO OF ATHEROTECH

Mike Mullen's (Laboratory Technology '92) career journey, blending progressive experience in laboratory sciences and finance, has come full circle. Mullen was recently named CEO of Birmingham-based Atherotech, a pioneering cardio diagnostic technology firm whose VAP (Vertical Auto Profile) cholesterol test was recently named by the *Wall Street Journal* as one of "five tests worth paying for." The VAP test identifies emerging cholesterol risk factors and measures important metrics not included in traditional tests.

Mullen graduated from Auburn with a sound foundation in laboratory sciences, but found by broadening his background in managing the financial aspects of an organization, he gained a greater understanding of the growth of successful companies. Armed with the knowledge of successful operations and innovative products, Mullen was able to develop an entrepreneurial sense and sound strategic planning principles that are crucial to developing venture capital and company growth.

After serving as controller with Atherotech, Mullen moved to Child Development Schools, Inc. as chief financial officer. As the school system recognized double-digit growth in revenue and cash flow, it was clear that Mullen's leadership could translate to different industries. With credentials earned from successful financial management, and a passion and belief in the product developed by Atherotech, a company he helped to build with a solid fiscal foundation, Mullen's return as CEO was a natural fit. "Understanding the company on a micro and macro level helps build a solid organization and gives you the opportunity for success," says Mullen. "Having a sound product (the VAP test) like this provides a real opportunity to grow the company while having a positive impact on people's health." Information about the VAP Test is available at: www.thevaptest.com



PROFESSOR OF THE YEAR

Dr. Tim Lindblom, (Molecular Biology '93) was named the 2008 Arkansas Professor of the Year by the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education (CASE).

Lindblom, an associate professor at Lyon College in Batesville, Ark., joined the faculty in 2002. His current research efforts include the exploration of how animal cells cope with the constant presence of toxic chemical compounds ingested or produced by the body's normal cellular metabolism.

The U.S. Professors of the Year program salutes the most outstanding undergraduate instructors in the country. It is widely recognized as one of the most prestigious awards honoring professors.

Dr. Robert Kinsaul (Pre-Dentistry '71) received the American Dental Association's 2008 Humanitarian Award for his volunteer dental-care efforts across the globe. Kinsaul, who currently practices in Phenix City, Ala., has serviced those in need including tsunami victims in Sri Lanka, earthquake victims in Pakistan, and citizens of a war-ravaged Afghanistan.

For 32 years, the University of Alabama School of Dentistry graduate has served the less fortunate on every continent except Antarctica and Australia, but vows to make it to Antarctica "one of these days." His efforts encompass setting up dental clinics in El Salvador, Afghanistan and Russia in addition to the establishment of a 2,400-square-foot dental clinic in Rameswaram, India. Kinsaul once flew a Russian dentist and his bilingual office manager from the Moscow clinic to the U.S. at his own expense for training.

The ADA Humanitarian Award recognizes dentist members who have distinguished themselves by outstanding, unselfish leadership and contributions to their fellow human beings in the field of dentistry. Kinsaul will receive a \$5,000 award that will be donated to the dental charity or project of his choice. He will be honored at the ADA's 150th annual session in Honolulu, Hawaii.

2008 HUMANITARIAN AWARD



Professorship Initiative

The president of Auburn University recently identified raising funds for 81 endowed professorships as a key strategic initiative for the university. Professorships attract and help retain faculty with exceptional merit. These funds enable Auburn to offer competitive salaries to faculty who will stimulate young minds, uphold the highest standards, and contribute to building programs that enhance the University. Professorships offer a huge boost in morale

to recipients.

To meet this strategic initiative, Auburn will provide limited funds into perpetuity for 81 professorships. This is a unique opportunity available for a restricted window of time — October 1, 2008, to September 30, 2009. During this period, a professorship may be established for \$150,000. This is half the amount normally required for such a gift. This is a unique opportunity for the Auburn family to support outstanding faculty.

Q & A

Does the pledge need to be paid within a certain timeframe?

Yes, the intent is for the pledge to be paid in three years or no later than September 30, 2012.

Will the university match endowed chairs?

No, this initiative is for endowed professorships only.

Can a donor add to a professorship with future gifts?

Yes, but the contribution from the university will not increase.

Can constituencies share professorships?

Yes, they can be shared between colleges/schools.

How long can a faculty member hold one of these 81 professorships?

The length of time will be five years.

How will the funds be used?

These funds will be used as a salary enhancement.

Who is allowed to receive these professorships?

It is at the dean's discretion who may receive these professorships.

Will the matching funds increase as the endowment increases?

No, the university matching funds will remain at \$7,500 in perpetuity.

Who has the authority to award professorships?

The deans have full authority.

When do the professorships begin payout?

The professorships will begin payout one year after the final payment.

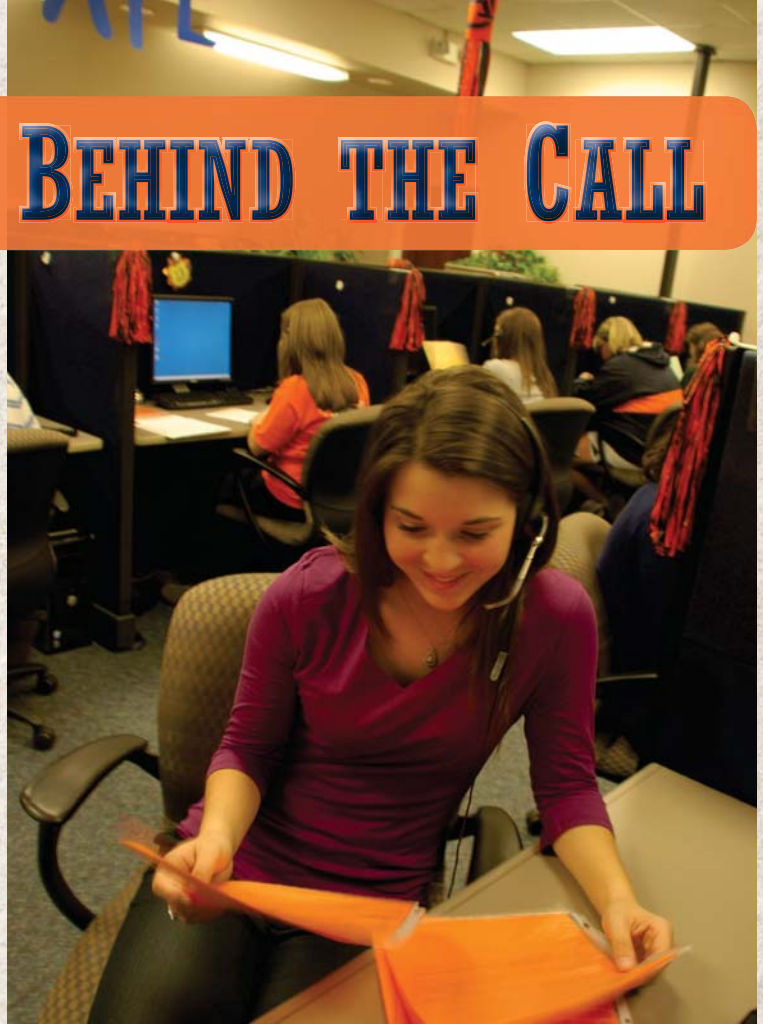
THE VOICE BEHIND THE CALL

Kayla Cole considers her job on the third floor of the Alumni Center as a home away from the stress of her biomedical science major. The sophomore from Peachtree City, Ga., calls the Auburn Fund call center her safe zone.

“The atmosphere I work in would be one of the favorite parts of this job. I feel a sense of home when I am in the call center,” Cole says. “Knowing I am giving back to Auburn a little of what it has given me makes my job worthwhile.”

The Auburn Fund is dedicated to enriching the lives of current and future students by making a difference in their overall experience. The main objective of the Auburn Fund is to provide a convenient way for alumni and friends to make a gift while enhancing their relationship with the University.

Cole finds it an honor to help in that effort. “I am proud to be a part of this generation where new ideas further our understanding of the world we live in. Auburn is a catalyst to creating those ideas and giving back through the Auburn Fund is the first step in helping students like myself build our future and yours,” Cole says.



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GO WEST YOUNG WOMAN!



by Timothy Meeks

Eletha Howard's (Laboratory Technology '43) tidy brick home rests on land that has been in her family since before the Civil War. Across a small creek are the remnants of the stone chimney that once anchored the north Alabama farmstead where she was born and raised. Howard's living room walls are covered by stunning water colors, many featuring flowers native to the area, created in her half century of painting. Scores of Christmas ornaments hang from ornamental trees, painted each year for a fundraiser for the Rogersville Public Library. Howard's home simply gives a sense of a woman connected to her community. Visitors to her warm living room may wonder if this gracious Southern lady has ever been far from Rogersville, Ala. Both literally and figuratively, Eletha Howard has ventured far from her hometown.

The Train from Athens to Auburn

In September 1939, when Eletha Howard boarded the south-bound train from the Athens Rail Station, she was already a pioneer. Her matriculation at Auburn University, then officially named the Alabama Polytechnic Institute (API), was not the norm for the young women in her north Alabama community. She eschewed the traditional home economics track pursued by the majority of coeds in the early 1940s and followed her interest in medical technology. Frequently, Howard was one of a small number of females in the classroom and laboratory. Her natural talents and hard work paid off with a degree in 1943. With her country deeply enmeshed in a war and the large number of American working-age men enlisted in military service, Howard had little idea that circumstances would provide her opportunities that were unthinkable just a few years before.

Necessity Breeds Opportunity

"We all knew that a Texaco recruiter was on campus, and they were looking for recent graduates to work in their laboratories," recalls Howard, "but I'm not sure they (Texaco) expected him to consider women. But, because of the war, I think they had to get the best available for the job." Howard remembers the interview as very professional and fair, but she does admit some level of surprise with the way it concluded.

"He just said, are you ready to go west?"

Leaving the family, friends and only community she knew was a major step for Howard, particularly in a time period where mobility for job relocation was uncommon and certainly rare for a young single woman. Yet, she boarded a train for the Texaco Laboratory in Port Arthur, Texas, and began a career that spanned 36 years.

"I started as an analytical technician in the grease lab," says Howard, "and the test I conducted was evaluated at a high level." Asked if she encountered any obstacles over her gender, Howard recalls very few. "I guess there wasn't really any time or need for that when it was clear that a woman could do the job – we just stepped in."

Howard progressed through the Texaco organization and grew her skills as computers changed how their laboratories functioned. "Computers did change things, but the fundamentals were the same – and I just always loved the chemistry."

As she advanced in the company, she also developed a network of friends in the oil-country town. "From the first day I was there, the people at Texaco really took me in - and our work and home were really one big community." Although she returned to

Alabama following her 1980 retirement, she visits Port Arthur on an annual basis. Along with the people there, Howard enjoys seeing the state flower of Texas, the bluebonnet, which also, through her watercolor paintings, adorns the walls of her Rogersville home.

The Greatest Generation

Long time NBC news anchor Tom Brokaw has introduced the phrase "The Greatest Generation" in today's lexicon as a tribute to Americans that weathered the Great Depression, fought tyranny in World War II and emerged from these trying events to build the prosperity of 20th-century America. This generation also saw tidal changes in roles women played in the home and workplace. Like so many of her peers, Howard remembers what carried her through uncertain times: "hard work, dedication and not being afraid. Well, I guess there probably were times I was afraid, but I just couldn't let it stop me."



Photos above are courtesy of Elton N. Gash and are included in *Texaco's Port Arthur Works - A Legacy of Spindletop and Sour Lake*. The complete work is available at www.texacohistory.com.

“I guess there probably were times I was afraid, but I just couldn’t let it stop me.”

-Eletha Howard



THE CROWD
YOU SEE
AT THIS
STORE ARE
VISITORS
BUYING MORE
Berma Shabe

ANGEL & VILMA
DE GADILLO PROP.



Eletha Howard (left) with her mother as they celebrate Elthea's graduation from Auburn University in 1943.



JACKSON TIMMERMAN: NEVER GIVE UP



In this photo, Aubie holds Jackson Timmerman when he was a baby.

"When I was little, I wanted to play football at Auburn," Timmerman says.

COSAM senior Jackson Timmerman knew from an early age that he wanted to play college football, but recognized the only way to college was through academic scholarship.

"I painted doctors' houses with my father starting in the fourth grade. I borrowed anatomy books and shadowed the doctors at work in the eighth and ninth grades," Timmerman recalls of his childhood in Rehobeth, Ala. The five-foot-10-inch high school graduate weighing 215 pounds would not earn a football scholarship, but his accelerated grade point average and a 30 ACT score gained him a physics-academic scholarship.

Next stop, football try-outs. In the fall of 2006, Timmerman was only one of two players out of 50 to make the walk-on team. While balancing freshman courses like Honors Physics I and II, the offensive lineman endured grueling practices against players much bigger than he. Luckily, by the end of his freshman year, he had grown to six feet and had gained 50 pounds. But it wasn't his growth that his coaches would ultimately recognize. Once again, it was his intellect.

In the fall of 2008, Auburn University introduced a new offensive strategy to the team that included a plethora of signals called in from the sidelines. Former Auburn University Offensive Line Coach Hugh Nall approached Timmerman about a unique way to serve the football team. Timmerman would stand beside then Offensive Coordinator Tony Franklin

on the sidelines to create a flurry of hand signals, much of which didn't include the actual play call.

"Coach Nall told me it was the best way I could help my team so that's all I needed to hear," Timmerman says, adding that the same critical thinking skills applied in the Physics classrooms transferred onto the field.

"I spent the entire summer before the 2008 season learning which pass routes met which coverage, what signals matched which plays, and which were

decoys, and so on. Just like I analyze a lot in my studies, I also analyze football. I know a lot about the game," Timmerman says.

Troy Smith, an athletic academic advisor, feels the Auburn family is honored to have had to chance to work with the highly decorated athlete. Smith refers to Timmerman's awards including Academic Top Ten Tiger Honors 2006-2008 and AU Football Academic Top Ten Award 2007.

"To put it plainly, Jackson Timmerman is a winner! We have had very few student-athletes accomplish what Jackson has. He is the epitome of a true scholar-athlete," Smith says.

Beverley Childress, COSAM Director of Prehealth Professions, recalls recognizing those qualities in Timmerman on a recruiting visit to his high school.

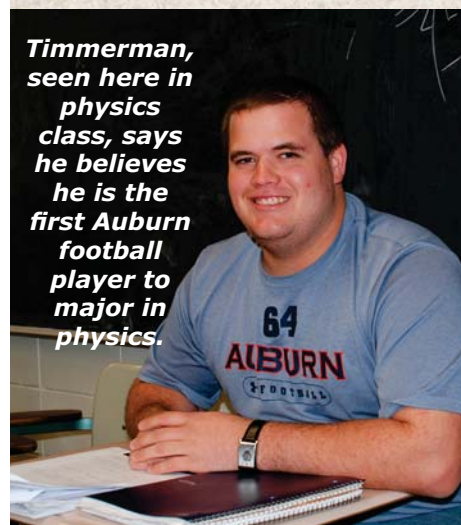
"When I think of him (Timmerman), I think of someone willing to go the extra mile for others, willing to do what is expected without complaining," Childress says. "I like Jackson because he is honest and what you see is what you get."

And what tiger fans saw in the fall of 2008 was a young man applying the same skills learned in the classroom to his contribution on the football field. The classically trained pianist, who keeps a photo of his small dog on his cell phone, admits that he always knew where he was going since servicing the homes of the doctors he one day wanted to be.

"I never gave up," Timmerman says. -Christy Kyser Truitt

COSAM ATHLETES

Timmerman, seen here in physics class, says he believes he is the first Auburn football player to major in physics.



"COSAM has taught me how to utilize my time effectively in order to get all of my work done on time. This discipline helps me to also train effectively when I'm not practicing."

-William Cassidy, freshman, pre-biomedical sciences, Football Player

"I mainly use discipline, self-control, but mainly organization (to balance athletics with academics). Practice reduces the hours of studying, which makes me organize my time much better. I never waste my time because I know I won't have any other time to do my homework and study."

-Patricia Sanz, freshman, microbiology, Women's Golf

"My course studies in actuarial science have helped me become successful in the pool. Things like managing my time and prioritizing have helped me become both a better student and athlete. I am a student-athlete and school always comes first. I need to manage my time well and be disciplined when doing my school work so that I can put a full effort into my swimming. On a lighter note, I have a mind for numbers and that helps me catch all the errors my coaches make in adding up the yards in a practice or balancing a set."

-Melissa Marik, junior, actuarial science, Women's Swimming

COSAM ATHLETES



"Athletics taught me to set goals that seem unattainable and then figure out the many small steps it will take to get there," Denby says.

"Dedication and discipline go hand in hand with being a student-athlete. I have to be dedicated to my sport and I also have to be dedicated to my school work. Being disciplined is also very important because I have to always make time to get my work done and be prepared for school while traveling and having practice. I also have to be disciplined in my sport which means always being willing to work incredibly hard and staying focused.

-Paige Monfore, sophomore, biomedical science, Equestrian

"I am on a conquest to be my best-self. Whether it is acing a test, sticking a routine or being a great friend, academics and athletics aid me in this goal. I study for tests the same way I practice – with focus and intent. Through my studies and athletics, I have learned to persevere. When I don't think I can do something, I prove myself wrong."

-Kristina Voss, junior, chemistry, Gymnastics

KARA DENBY: NOTHING IS FOR GRANTED



"I was forced to be as efficient as possible in order to get everything done on time," Denby says.

When Auburn University athlete Kara Denby exited the University pool for the final time in 2008, her vision cleared to a greater purpose in life.

"I want to work towards the eradication of Malaria and Chaga's Disease in Latin America and other parts of the world," the COSAM graduate says. In order to prepare for this, Denby, a *Summa Cum Laude* graduate in Zoology, is currently in Latin America studying Spanish. She will then visit Haiti for a campaign with Smile Train, a group that performs free surgeries to repair cleft lips and cleft palates.

Denby walks toward that future under the weight of numerous swimming and academic awards including a member of the U.S. National Team; World Record Holder in the 4X100 SCM Medley Relay; a 24-time NCAA All American, two-time ESPN First Team Academic All-American At-Large and twice SEC Female Scholar Athlete of the Year, to name a very few. Denby also received the Auburn University Leah Rawls-Atkins award, which is the highest honor given to a female student-athlete who best exemplifies character, leadership and athletic achievement.

Denby credits a disciplined approach to both academics and athletics for her unified success. "Athletics taught me to set goals that seem unattainable and then figure out the many small steps it will take to get there," Denby says. "But I do know that it (success) would have been impossible without understanding and supportive teachers and advisors in COSAM."

Professors often determined the best courses for Denby, who says she had to learn to be teachable both in the

pool and in the classroom. "I was forced to be as efficient as possible in order to get everything done on time. But there were some professors I had that were so interesting I think I would have enjoyed a class on 'How to Watch Paint Dry' if they were teaching it," she says.

The upper-level course Parasitology inspired Denby to become involved with disease eradication. She worked in the lab of her professor, Dr. Christine Sundermann, in the fall of 2007, and her passion for helping those in extreme poverty grew.

"Despite her tight schedule of courses and swimming practices, Kara never mentioned that she was tired or needed to cancel a lab session so that she could study for an exam. She always completed everything - always smiling, cheerful and especially humble," Sundermann reflects. "I was extremely lucky to work with such a student. Kara Denby is a wonderful example of how hard work, determination and a positive outlook can work synergistically."

Today, Denby's long-term plans include attending medical school in a program that emphasizes tropical medicine and volunteering with a medical-mission organization and pursuing research in related fields.

"My desire to help others has increased as I have been blessed with success in swimming and athletics. I realize how much I have been given in talents and opportunities. My (COSAM) classes have opened my eyes to the suffering going on in many parts of the world," Denby muses, adding that she never takes for granted her access as an American to clean water, sanitation, treatment of disease and an abundance of food. -Christy Kyser Truitt

College of Sciences and Mathematics



Leadership Council 2008

For more information on the Leadership Council and how to get involved, contact

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