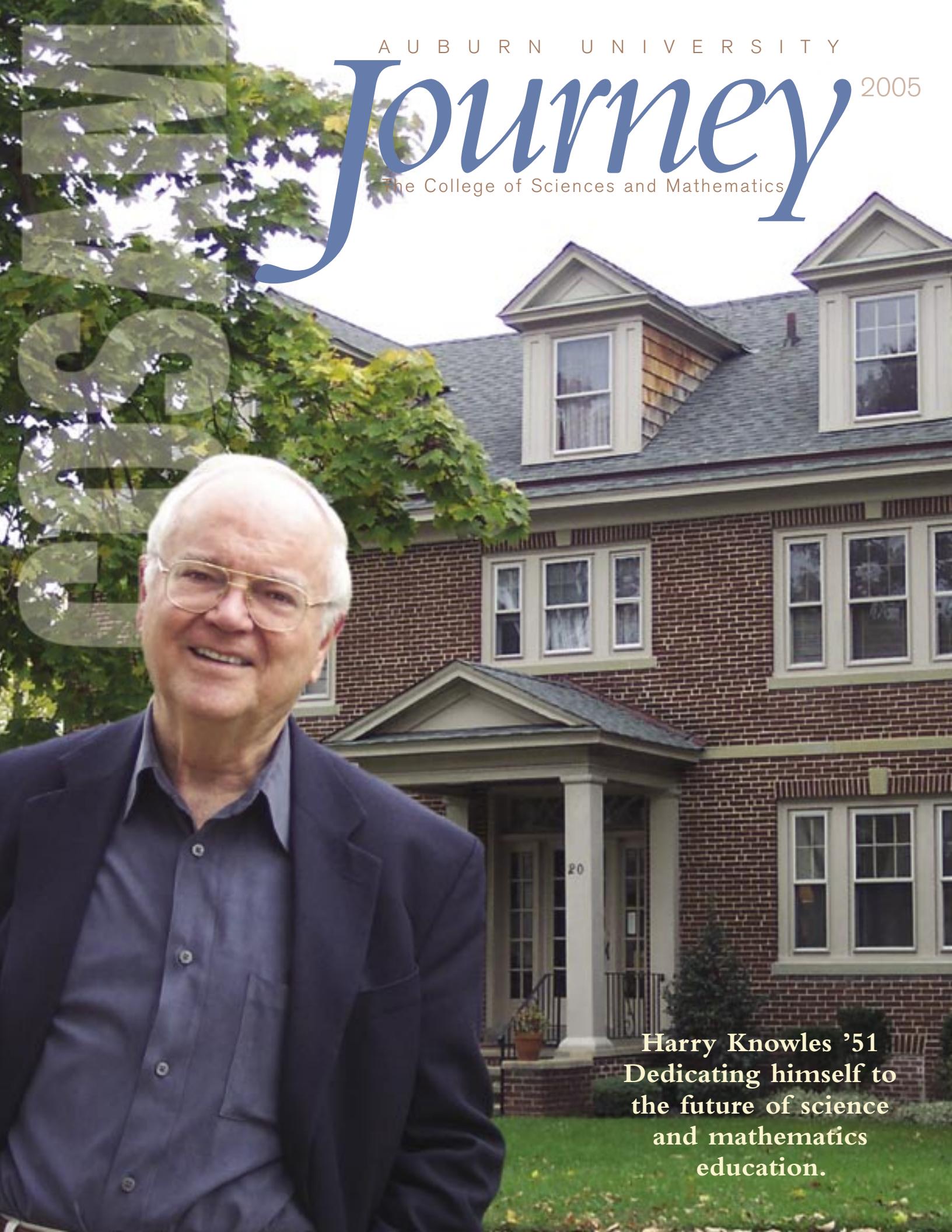


A U B U R N   U N I V E R S I T Y

# Journey

The College of Sciences and Mathematics

2005



**Harry Knowles '51**  
Dedicating himself to  
the future of science  
and mathematics  
education.



Welcome to the 2005 issue of *Journey/Spectrum* magazine. You will find the following pages packed with stories of COSAM faculty members receiving national and international praise for their research; alumni who give their heart and soul to COSAM; and students who continue to be the best and brightest on the Plains.

Inside this issue, we take a look at an alumnus who is dedicating his retirement to supporting upcoming science and mathematics teachers across the country, and we'll also introduce you to an alumnus who makes a living playing with LEGO bricks. So, follow along with us as we recount a year of groundbreaking research, construction, and student achievement.

Between each issue of *Journey/Spectrum*, be sure to keep up with all the latest COSAM events via the COSAM News Web site at [www.auburn.edu/cosam/news](http://www.auburn.edu/cosam/news).

Martha Barker  
COSAM Director of Media Relations

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*"The journey is the reward."*

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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.



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

# *President's Message*



Dear Auburn Friends and Supporters,

The New Year is off to a great start here at Auburn University. The Southern Association of Colleges and Schools probation has been lifted. Coach Tommy Tuberville's football team capped a 13-0 Southeastern Conference championship season Jan. 2 with a Sugar Bowl win over Virginia Tech. Our capital campaign and legislative efforts are gathering momentum. Auburn faculty continue to excel in both research and instruction and Auburn students continue to exhibit academic excellence.

Within the College of Sciences and Mathematics, the new Science Center is nearing completion. Already, many of the COSAM administrators have moved into the complex and, by next fall, the \$39 million center featuring state-of-the-art laboratory and classroom technology will be complete and ready for our students.

The lifting of the university's probation by SACS was the culmination of a year of difficult work toward that end by many outstanding people. I am appreciative of the efforts of all those who worked to allow us to achieve full compliance with the SACS standards. Most importantly, I am appreciative of each member of the Board of Trustees, all of whom were willing to take any and all steps I asked them to take in order to have this university's reputation completely restored through the removal of probation, and to Gov. Bob Riley, who has supported all of our efforts and selflessly made himself available to meet with SACS on several occasions. I also want to thank all members of the Auburn family --- administration, faculty, staff and students --- who keep the mission of Auburn foremost in their minds and activities.

With this episode behind us, it is now time for all of us to work together and to renew our efforts toward making Auburn everything that it needs to be --- an outstanding learning environment for young minds, a leader in innovative research and an important economic engine for the state of Alabama.

As interim president, I have already identified six university initiatives that I believe will move us toward a brighter future for Auburn. In addition, I've developed a four-point legislative agenda that, if we are successful in gaining its passage, should help us slow the growth of student tuition costs and attract and retain outstanding faculty. I look forward to working with many of you as we shepherd the initiatives toward completion and I urge your support for our legislative agenda.

It is my sincere hope that the lifting of the SACS probation and our recent football success will serve as rallying points for the Auburn family. The example of selflessness we witnessed from the 2004 football team is one that we should emulate university-wide. Just like football is a team sport, growing a university to its full potential takes a team effort. Students, faculty, staff, administration, alumni and trustees all have their specific roles, but all contribute to the university as a whole. By pulling together as a university community, we can accelerate progress on things we agree on and more quickly and civilly work through our differences. When we do so, we will strengthen even more an already outstanding institution and make Auburn a champion in every respect.

Enjoy this issue of *Journey* and thank you for all you do to support Auburn University and the College of Sciences and Mathematics.

War Eagle!  
Ed Richardson  
President, Auburn University

# **A MESSAGE FROM THE DEAN**

B.Z. Shakhashiri made a significant observation recently when he wrote, "I make the distinction between scientific literacy, or knowledge of a particular field, and science literacy, which refers to a broad appreciation and understanding of science and its practitioners. Science literacy enlightens and enables people to make informed choices; to be skeptical; to reject shams, quackery, and unproven conjecture; and to avoid being bamboozled into making foolish decisions."

According to the National Science Foundation, more high school graduates are going to college, but less than one-third are pursuing degrees in science. This presents us with two major risks. The first is that there may not be enough highly trained scientists in the next generation to maintain our worldwide lead in science and, with it, an accompanying quality of life.

The second risk may be less obvious, but forebodes troublesome consequences. In a time when authentic science and a range of pseudo-sciences coexist in a culture, how will the general student population develop the skills to navigate in an increasingly science-infused world? Where will they get the perspective to "reject shams, quackery, unproven conjecture and avoid being bamboozled into making foolish decisions"? On what basis will future generations decide what to eat, how to vote, or where to live?

Where does the College of Sciences and Mathematics fit into this challenge? We can teach science, we can train scientists, but, in addition to that, we need to radiate an appreciation of science as a way of thinking. We need to develop tools that not only meet the professional ambitions of the science majors, but are also cognizant of the science literacy needs of our student body as a whole. With that responsibility, we need to foster an attitude that demystifies science.

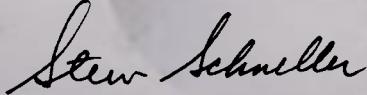
With our newly completed science complex, ideally and purposefully located in the heart of a student residence area and our ongoing commitment to provide curricula that are continually being refined, we are poised to equip new generations with engaging and creative approaches that go beyond basic education and provide a foundation for lifelong science literacy.

On the exterior of one of the buildings, there is a frieze symbolic of the interrelationship of the sciences with all fields of learning. Executed by Auburn University sculptor Gary Wagoner, this work of art exhibits the continuum of science. As it beautifies the building, it also serves as an invitation to enhance our lives with an understanding of science as way of thinking.

Though the buildings are new, beautiful, and inviting, and the future beckons the unknown, the College of Sciences and Mathematics' mission endures: the transfer and preservation of knowledge (teaching); the discovery of new knowledge (research); and, the dissemination of knowledge (outreach).

We appreciate knowing our alumni and friends share with us the goals embedded in this mission, and we will continue to look to you to assure the value-added ingredients are in place.

When you are in the Auburn area, please let us know so we can show you the modern learning environment that the Science Center offers the Auburn University student of the 21<sup>st</sup> century.



Stew Schneller  
Dean and Professor





# Academic and Student Affairs

## Larry Wit

Associate Dean for Academic Affairs

**A**llow me to catch you up on what has been going on in our office and with our students.

Two of our advisers, Ruth Ann Fite and Beth Yarbrough, initiated a peer instructor/mentor program. They trained a cadre of COSAM students who have helped instruct in two classes: Pre-Health Professions Orientation and Success Strategies. The mentors also helped during the registration process by providing timely advice to students before they meet with the professional advising staff.

Student organizations continue to thrive. Lambda Tau, the medical technology honorary, was nationally recognized. Just a few years ago, the Pre-Pharmacy Club did not exist, however, under the leadership

of Becky Thomas (one of our advising staff), the club was established. Currently, pre-pharmacy is our hottest area of student interest (more than 500 majors), and they come to the meetings in a force of nearly 200. Under the capable leadership of Beverly Childress, AED was recognized at its national convention for service and outreach to the Auburn community. Our students continue to be accepted into professional schools at a rate considerably exceeding the national norm. Those attending professional schools and graduate schools report that Auburn has prepared them well for their post-graduate work. For example, a COSAM alumna enrolled in Harvard Medical School recently told me how she is using what she learned at Auburn to help her fellow classmates.

COSAM Leaders and the COSAM Student Council are also doing well. In the fall, the COSAM Leaders had their five-year reunion. The

Student Council recently sponsored a program called Open Arms. This program involved approximately 125 students who went out into the community and volunteered their services in 20 different settings.

Finally, let me thank you for all you do to promote COSAM and its programs. I cannot tell you how many times I interact with prospective students who tell me that their interest was sparked by someone like yourself. For those of you who have given money for scholarships, let me thank you on behalf of those you have helped. The competition for good students has never been keener, and the need for scholarship money to recruit them has never been greater.

We would love to have you come by for a visit. If you cannot visit, drop me an email ([witlawr@auburn.edu](mailto:witlawr@auburn.edu)) and give me an update on what has been going on in your life. I would love to hear from you.

## COSAM Hosts First Open House

COSAM hosted its first Open House in the fall, welcoming new students to Auburn and COSAM and giving them an opportunity to get to know the advisers they will work with throughout their time at Auburn. As students munched on the free pizza and cookies provided at the reception, they also found out more about tutoring opportunities and various COSAM honor societies and organizations.

*"The goal was simply to encourage new students to find our offices and have a welcoming atmosphere when they got here,"*

said Beth Yarbrough, COSAM academic adviser. "We hope that they have felt more comfortable visiting with us after we made that first move."

Each spring the COSAM Leaders gather at Larry Wit's house for an end-of-the-year bash and the ever popular "stuff-the-bug" event, which can only take place after the students have eaten a hardy meal of casseroles, veggies, and birthday cake. The 2003-2004 Leaders set an all-time record in 2004 when they wedged 14 Leaders into Wit's 1971 model Volkswagen Beetle.





## Overtoun Jenda

### Associate Dean for Diversity and Special Academic Projects

The Office for Diversity and Special Academic Projects had yet another wonderful year. Twenty-seven African-American incoming freshmen participated in the eighth annual COSAM Summer Bridge Program. Sam Pettijohn, the first Auburn University African-American graduate, spoke to participants during the annual awards luncheon.

Our staff continues to travel to high schools and recruiting fairs to talk with prospective minority students about COSAM and what it has to offer. We are currently expanding our recruiting efforts to include community colleges. Once these students enroll at Auburn, they come to the Drop-In Center and participate in our study workshops which assist African-American students in maintaining good grades in sciences and mathematics.

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**In fall 2004,  
10.83 percent of  
undergraduates in COSAM  
were African-American, the  
highest percentage among  
all the colleges at  
Auburn University.**

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COSAM's hard work in recruiting and retaining African-American students is paying off. In fall 2004, 10.83 percent of undergraduates in COSAM were African-American, the highest percentage among all the colleges at Auburn University. COSAM's efforts are also being noticed nationally. In 2004, I received a Minority Access National Faculty Mentor Role Model Award and was appointed by Governor Riley to serve on the Commission for Action in the Black Belt. This would not have been possible if it were not for the investment COSAM has made in the recruitment and retention of African-American students.

We are excited about joining the rest of the COSAM administration in the new classroom building. So next time you come to Auburn, please drop-in and visit us. Meantime, do not hesitate to contact me at [jendaov@auburn.edu](mailto:jendaov@auburn.edu)

## Congratulations to Dr. Jenda who

- received a Minority Access National Faculty Mentor Role Model Award at the national Role Models' Awards in September 2004. The annual Role Models Conference was created out of a cooperative agreement between the U.S. Department of Health and Human Services' National Institutes of Health and Minority Access. The conference focuses the national spotlight on individuals who have excelled in producing and supporting minority researchers, especially in the biomedical sciences and health-related fields.
- was one of six AU administrators and faculty members appointed to Alabama Gov. Bob Riley's Commission for Action in the Black Belt. For additional information on the Black Belt Commission visit the Web site at [www.blackbeltaction.org](http://www.blackbeltaction.org)

[www.auburn.edu/cosam/minority](http://www.auburn.edu/cosam/minority)

# 2004-2005 COSAM Leaders

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



Back row (from left): Dan Carter, Nathan Bullington, Adams Moore, Jared Roberts, Philip Putnam, Alan Baggett, Kyle Brizan and Shad Williams.

Front row (from left): Christina Guice, Stefanie Lycans, Kathryn Foti, Ashton Collier, JJ Cook, Rayne Russell, Haley Hallman and Nayana Kamath.

## 2004 COSAM Dean's Medalists



**Wayne A. Brantley**  
Biological Sciences  
Montgomery, Ala.

**Rachel M. Curvin**  
Biomedical Sciences  
Birmingham, Ala.



**Brian J. Christy**  
Mathematics  
Huntsville, Ala.



**Rachel M. Madray**  
Biological Sciences  
Brunswick, Ga.



**Sharon K. Hamilton**  
Chemistry  
Decatur, Ala.



**Barbara L.  
Pritchard**  
Biological Sciences  
Indian Springs, Ala.



**Jason S. Williams**  
Geology & Geography  
Newton, Ala.



**Leslie A. McCall**  
Physics  
Birmingham, Ala.



# Student Spotlight



Lindsey Harris may not look like a typical pioneer, but the Auburn student has been where no other college student has been before. The conservation major was chosen as the first intern ever accepted to work at the Australia Zoo.

The zoo has been made famous by its owner Steve Irwin, otherwise known as the Crocodile Hunter. Irwin is famous for wrangling crocodiles, snakes, and other animals for his show on the Animal Planet network.

"I've always liked Australia, and I was looking for an opportunity to work there because I really like marsupials," Harris said.

She coordinated the trip through AU's study abroad program. In addition to her internship, Harris took classes at Australia's University of the Sunshine Coast, located about an hour north of Brisbane.

On her behalf, a representative from the university approached the zoo about an internship for Harris. The zoo declined initially, however, saying they didn't accept interns due to Irwin's and the zoo's worldwide popularity.

"They are always getting requests from people who want to work there just to be close to Steve. It is just easier for them to say no," she said. But Harris's resume made zoo officials take

a second look. She had already spent four years working for Zoo Atlanta, near her hometown of Roswell, Ga., and she displayed a genuine interest in working with animals through her biological sciences curriculum.

"I had to write a lot of essays about why I wanted to work with the animals and let them know that is wasn't just because I was impressed with Steve," she said. "They wanted to make sure I was legitimate."

Harris worked for six months at the zoo while taking classes. During her internship, she did behavior studies on Tasmanian devils and gray kangaroos. Occasionally, she was asked to help with crowd control while Irwin gave a dem-

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*"When you can combine study and travel there's no excuse not to go."*

---

onstration to visitors or to tape a segment of his "Crocodile Hunter Diaries" television show.

"It was really exciting and wild. People fly from all over the world just to see Steve so not only did I get to work with animals but I also had to play bodyguard."

She also got to assist Steve during the taping of "Croc Week," a series of live shows broadcast on the Animal Planet network.

Harris concedes she loves to travel and her experience in Australia only sparked her desire to see other places around the globe. This winter she traveled to Antarctica on an ecotourism cruise, spending 12 days aboard a ship while studying wildlife and animal conservation.

"I wanted to look at the impact of tour groups on Antarctica, which is ironic

since I went with a tour group. But I wanted to see what happens when groups visit there," she said.

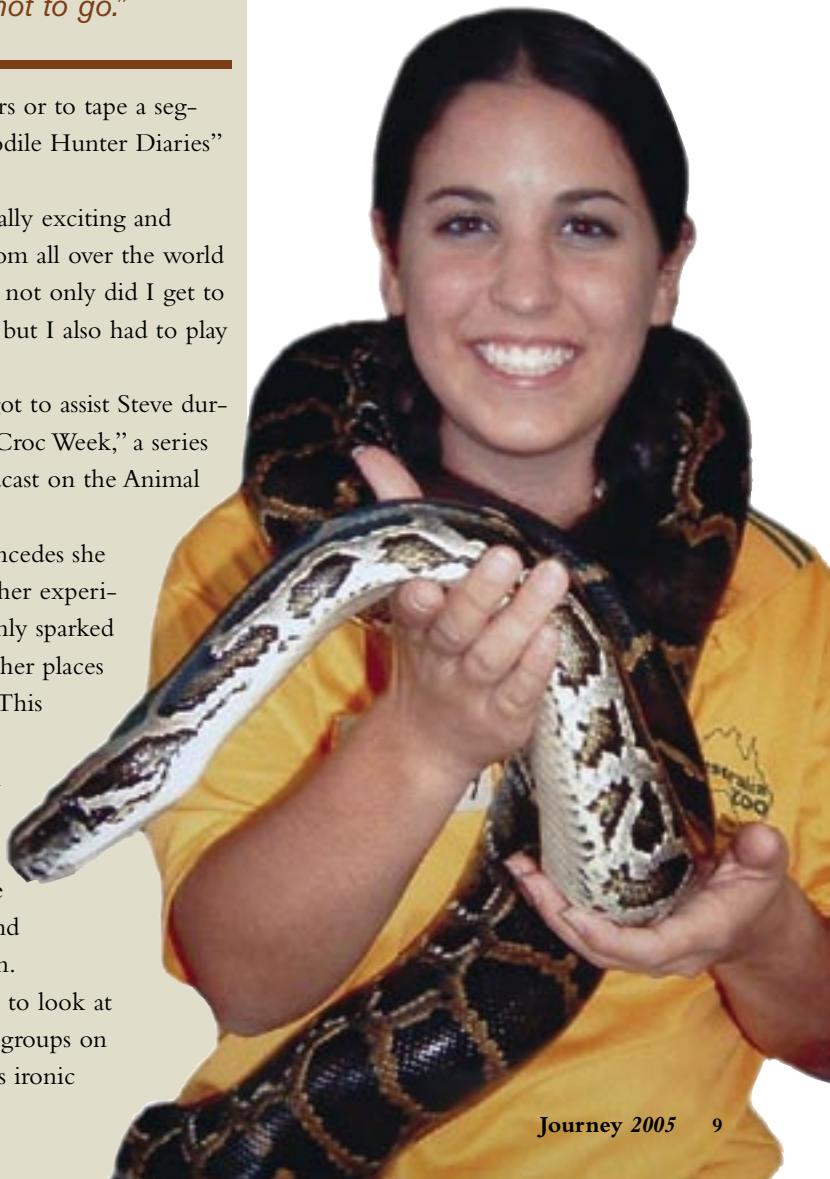
Because she caught the boat in Argentina, Harris decided to add excursions in that country and Chile to her month-long trip.

Harris said her parents are supportive of her urges to travel worldwide. Her mother even spent a month with her in Australia. Her friends, however, have a different opinion.

"Most of my friends think I'm crazy," she said. "But when you can combine study and travel there's just no excuse not to go."

**By Katie Wilder  
AU Office of Communications & Marketing**

**Source: AU Report**





## BIOLOGICAL SCIENCES

Department Chair  
James Barbaree

**James Barbaree** was named the Distinguished Professor by the Sphinx Chapter of the AU Mortar Board.

**Jim Bradley** gave an invited address at the Seventh International Congress on Behavior Studies in Engelberg, Switzerland. The address was titled "Human Embryos and Personhood: A Biologist's View."

**Stephen Dobson**, an Invited Visiting Professor at the University of Paris, was awarded a Fulbright Senior Research Scholarship to study at the Institute of Advanced Studies in Bangalore, India. He also attended the International Society for Behavioral Ecology meetings in Finland last summer, along with Geoff Hill and several biological sciences' students.



## MATHEMATICS & STATISTICS

Department Chair  
Michel Smith

The TEAM-MATH project, funded by a \$9 million NSF Grant, held its first two-week workshop this past summer; about 340 elementary, middle school, and high school teachers attended. The project is a collaborative effort among the departments of Mathematics and Statistics and Curriculum and Teaching from Auburn University along with Tuskegee University and school systems from 11 counties in southeastern Alabama. Over the next five years of the project, hundreds of K-12 Alabama mathematics teachers will have the opportunity to attend these summer workshops. **Gary Martin** from the College of Education is the primary investigator and **Steve Stuckwisch** is the co-primary investigator on the grant; **Overton Jenda**, **Chris Rodger**, **Michel Smith**, and **Phil Zenor** are the departmental faculty primarily involved in the project.

**Chris Rodger** was awarded a No Child Left Behind Grant to support two five-day workshops "Critical

Thinking and Problem Solving - A Second Summer Discrete Math Leadership Institute for K-8<sup>th</sup> Grade Teachers."

The first Ben Fitzpatrick Graduate Fellowship in Topology for \$2,000 was awarded to **Brad Bailey**. **Sasha Logan** won the COSAM Outstanding Graduate Student Award and the Joint MAA (Southeastern Sectional)/SIAM (SE Atlantic Sectional) Graduate Student Presentation.

The department hosted two mathematics conferences: "Abelian Groups, Rings, and Modules Conference," a conference in honor of Edgar E. Enochs on his 72nd birthday for his Contributions to Algebra and "The 20th Mini-Conference on Harmonic Analysis and Related Areas."



## PHYSICS

Department Head  
Joe Perez

**Stephen Knowlton** was selected as vice president of the University Fusion Association (UFA). The UFA is an organization focused on the development of plasma science and technology for the long-term development of the new, environmentally attractive energy source, controlled thermonuclear.

**Eugene Oks** won the privilege of bringing the 18<sup>th</sup> International Conference "Spectral Line Shapes" (ICSLS) to Auburn in 2006. The selection was made in the summer of 2004 during the 17<sup>th</sup> ICSLS at the meeting of the International Committee (Prof. Oks is a member of the International Committee). Previously, the conference has been held in Paris, Berlin, Florence, Toronto, and other international cities. The conference covers a range of fundamental and practical topics applied to various areas of physics and technology, including alternative sources of energy, advanced lasers, microchip technologies, atmospheric phenomena, and astrophysics.

**Edward Thomas** chaired the committee that compiled a major report on Workforce Development in the U.S. fusion energy community for the Department of Energy Fusion Science Advisory Committee. He presented the results of the report to the National Academy of Sciences.



## CHEMISTRY & BIOCHEMISTRY

Interim  
Department Chair  
Gene Hill

Congratulations to the **Lambda Tau chapter**, **Thomas Albrecht-Schmitt**, and **Andriy Korchev**. The Lambda Tau chapter was chosen the outstanding chapter in the nation for 2004. Albrecht-Schmitt was chosen to receive the Dean's Faculty Research Award and Korchev was chosen to receive the Outstanding Graduate Student Award in COSAM.

The department is actively searching for an NMR biochemist, an organic chemist and a department chair, and is in the process of purchasing a 600 MHz NMR.

**Eric Bakker** was selected to serve on the editorial board of *Microchimica Acta* for a three-year term.

**Dave Worley** received the Charles Stone Award given annually by the Carolina Piedmont section of the American Chemical Society for outstanding contributions to chemistry.



## GEOLGY & GEOGRAPHY

Department Head  
Bob Cook

**Bill Hames** received funding from the AU Outreach Office to develop microscopy exercises for Alabama's K-12 curriculum and **David King** received the Grover C. Murray Award for the best published papers in the 2004 Transactions of the Gulf Coast Association of Geological Societies. **Luke Marzen** and **J.R. Wersinger** (of the physics department) received funding from the U.S. Geological Survey to build a consortium among Alabama universities and state agencies known as AlabamaView. **Bob Cook** worked collaboratively with the Harvard University Mineralogical Museum to upgrade its research and gold study collections. **Chuck Savrda** received funding from the American Chemical Society-Petroleum Research Fund for undergraduate-assisted research on storm deposits.



# Celebrated Chemistry Professor Retires

After 34 years as one of Auburn's most beloved professors, Howard Hargis, head of the College of Sciences and Mathematics Chemistry Department and a professor of chemistry retired in 2004.

"It was fun to see Auburn's chemistry department and campus grow and take on more of a research orientation while keeping the teaching function as an important focus also," Hargis said of his time on the Plains. "A lot of the fun was working with the students and watching their academic development and growth."

Born and raised in New Mexico, Hargis worked at his family's cannery factory as a teenager. It was this experience that led him to make the decision to pursue an education.

After earning his chemistry degree from Eastern New Mexico University in 1964, he went on to obtain his doctoral degree from the University of Utah in Salt Lake City and later, completed his post-doctoral work at the University of Illinois.

He joined the Auburn faculty in 1970 as an assistant professor. In 1988, he was named head of the Department of Chemistry where he served as an administrator, teacher, and researcher. His research in organic chemistry focused on two areas – free radical chemistry and organic phosphorus compounds. He received funding from the U.S. Department of Education, Office of Naval Research, NATO, and more. He also authored numerous scientific publications and was a well-respected speaker in his field.

Looking back on his time at Auburn, Hargis said it was his interaction with the students he enjoyed the most.

"The kids I taught in organic

were really motivated. A lot of them went on to medical or graduate school. I enjoyed associating with the cream of the crop," Hargis said. "I had the reputation of being hard, but I didn't feel bad about that because I expected the students to learn the material. Many responded with a feeling of pride because they were able to meet the challenge. The students, particularly in organic chemistry and upper-level chemistry classes are incredibly bright, motivated, and hard working."

Hargis' love for his students is evident by looking through his long list of awards. In 1983, 1998, and 2004 he was named Professor of the Year by the Alpha Epsilon Delta Pre-Health Honor Society, Professor of the Year in 1994 by COSAM, in 1985 by the School of Arts and Sciences, and in 2002 by the COSAM Student Government Association. He was also honored with the Camp War Eagle Honoree Award in 1999 and the COSAM Dean's Teaching Award in 2004.

While at Auburn, Hargis served on committees too numerous to mention including the COSAM Science Center Committee. He was also a member of multiple professional organizations including the American Chemical Society and the Council for Chemical Research.

Hargis and his wife, Janet, began retirement by loading up the RV and retracing the Lewis and Clark Expedition.

When asked what it was like to not come in and work everyday, Hargis grinned and said, "I don't think I am going to get bored. Janet and I travel quite a bit, plus, she has a lot of activities planned for me."

# COSAM Announces Departmental Name Changes

By Elizabeth Farnsworth

Two departments within the College of Sciences and Mathematics (COSAM) have recently been renamed to better reflect each department's mission and role. The Department of Chemistry has become the Department of Chemistry and Biochemistry, and the Department of Mathematics has combined with the Department of Discrete and Statistical Sciences to form the Department of Mathematics and Statistics.

"Chemistry and mathematics have both been traditional disciplines for a number of years, but the disciplines have transformed as times have changed, as the needs of students have changed, and as research has changed," said COSAM Dean Stewart Schneller. "To respond, and at the same time, prepare our departments for the needs of the students, these modifications took place."

As Auburn continues to move forward into the 21<sup>st</sup> century, these name changes reflect a progressive and visionary mindset within COSAM. The new department identities will be a useful recruiting tool as the College continues to hire additional faculty in these departments, and display its readiness to rise to the challenges and expectations of the new millennium.

# The Great Outdoors: Arboretum Brings Nature to AU Campus

Christy Hartsfield has a room with a view. Just outside the wooden walls and cement floors of Hartsfield's small rustic office, nature is playing a symphony. In the middle of a bustling university town, COSAM's Donald E. Davis Arboretum offers students and community members a place to escape from the grind of daily life and enjoy Auburn's own natural garden. Hartsfield, the arboretum's curator, thinks she is lucky to see and work with this beauty every day.

"This garden has more than 350 species that are native to Alabama, and is special in that it's completely different from any other garden in the world," Hartsfield said. "We are unique in the role of conservation worldwide...in a way, I feel like it's my responsibility to make sure that everybody has a chance to see the diversity of plants in Alabama."

Hartsfield and the arboretum staff work hard to help open the eyes of students, teachers, and the general public to the diversity

of plants and the simple, yet astounding, natural beauty the arboretum offers. Since taking over as curator in January 2004, Hartsfield has made outreach a top priority. To her, it's important that people realize what great things are going on so that they can come out and enjoy all that

the arboretum has to offer.

With events ranging from school tours to Arboretum Days, it's certain that the arboretum is touching lives across the state. While the arboretum has had schoolchildren visit for tours since it first opened in 1963, Hartsfield wants to start more programs and open up the experience for more people.

In addition to welcoming school groups and Auburn University students, Hartsfield is brimming over with ideas for how to spark curiosity and interest about the arboretum around the community. Her plans include sponsoring an educational program for all ages one Saturday each month and developing self-guided GIS maps visitors can use to identify indi-



From left: Donald E. Davis, Christy Hartsfield, Professor Bob Boyd and Patrick Thompson admire the Founders' Oak Historical Plaque dedicated in April 2004



Children dig through an old log searching for insects during an Arboretum Days program.

vidual plants, just to name a few.

Hartsfield will also be heading the COSAM Earth Day Committee to set up events in conjunction with the universitywide Earth Day Celebration and working with staff at the Jule Collins Smith Museum of Fine Arts to coordinate tours and special events.

"There are a lot of people that come over here to study and we have Frisbee going on a lot of times. It is rented out for weddings, picnics, and all kinds of events," she said of the activities she sees out her window

every day. "During Arboretum Days, a mom said, 'Our walk in the woods will never be the same.' That's what I'm hoping—after a while you get to know the trees as friends, and as you walk through the woods it becomes more personal...you get involved with one thing and it just leads you in."

Patrick Thompson, the arboretum's agricultural technician, is excited about the direction the arboretum is moving. "People can enjoy buildings," he said, "but there's just a different way that people enjoy outdoor space. The arboretum is growing and changing and turning into something really wonderful. The community is really going to benefit from the future that's on its way here."

Public interest and support is important to both Hartsfield and Thompson, but they are also energized about the work they've recently done with students. Auburn University students majoring in everything from forestry to architecture to horticulture benefit from the rich historical

and natural gifts the arboretum offers. A history student is currently assembling a written history of the arboretum from information kept in the university's archives, the School of Architecture recently put in new walkways of pervious concrete—the latest in technology to handle water runoff and an exciting development that has attracted visitors from industry and government—and an Auburn student is using GPS units to



update the arboretum's map and database.

On a daily basis, the arboretum staff stays busy working to maintain the beauty of the grounds and the upkeep of the plant collection within the arboretum. With more than 350 different species, maintenance is no small job. Certain perennials also die out each year, and Hartsfield must decide what new plants to add to the grounds.

"We want to keep it as rustic feeling and as natural as possible so that it feels like a native Alabama forest," she said. "We don't want to develop it so much that it begins to become botanical gardens. It's supposed to be a collection of trees but you can't have trees without habitat...it's such an interaction. You begin to learn the ecology and to see that everything depends on everything else."

Walking across the arboretum's hilly terrain, leaves crunch underfoot as Hartsfield's words resonate. The arboretum is a unique place within Auburn University, and a distinctive representation of Alabama plant life. There is no other place like it, and its importance rests not only in its uniqueness, but also in the enjoyment that children, Auburn students, and community members find in the grounds' beauty.

"The arboretum is important because it's the best representation of Alabama's native plants anywhere. It's something special for the whole state," Thompson said. "But it's also special because it's been able to affect so many people's lives and it's been a part of Auburn for 40 years. A lot of people have had lots of good memories out here."

## Arboretum Offers Free Nature Experience

On Saturday mornings before an Auburn University home football game, students in grades K-8 gathered at the Donald E. Davis Arboretum to participate in a new program called Arboretum Days.

"We love this program," said Cate Giustino, whose son Christopher Parsons participates in Arboretum Days. "The instructors are really good at presenting the material on a level that is easy for children to understand."

Arboretum Days, which offered a free pre-game nature experience to participants, covered a different topic each week as students learned about insects and wildlife and the trees and plants that inhabit the 13-acre gardens.

"The program provides an activity for the younger crowd tailgating before each home game," said Christy Hartsfield, arboretum curator. "I first got the idea when I noticed groups of children with little to do on Saturday mornings before the game. I thought this program would be a good opportunity to share with them some of the interesting things that happen in the arboretum."

COSAM, the School of Forestry and Wildlife Sciences, and the Alabama Forests Forever Program sponsored the program.

# Introducing

2005 Calendar—The 2005 Donald E. Davis Arboretum Calendar is packed from cover-to-cover with vibrant, full-color photos taken by arboretum staff member Patrick Thompson. Each month it highlights different animal and plant species that inhabit the arboretum. For more information visit [www.auburn.edu/cosam/arboretum](http://www.auburn.edu/cosam/arboretum)



Rick Oates of the Alabama Forestry Association teaches participants of Arboretum Days about the various trees in the arboretum.

# *Tenth Annual COSAM Dean's Scholarship Golf Classic*

2 0 0 4

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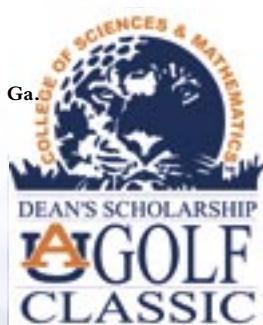
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## *2004 Golf Scholarship Recipients*



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Katie Kruger



Drew Nunn



Byron Smith

## *Join us for the 2005 Tournament*

### **What:**

11<sup>th</sup> Annual COSAM Dean's  
Scholarship Golf Classic

### **When:**

Friday, September 30, 2005

### **Where:**

Moore's Mill Golf Club  
in Auburn

*For more information, contact Sherri Rowton  
at 334.844.1235 or rowtosj@auburn.edu*

# TIME CAPSULE

## Dedication a historic event

COSAM made history on Friday, March 19, 2004, during the COSAM Time Capsule Dedication Ceremony, which took place in the quad dorm area between Lupton and Glenn Halls.

The time capsule, which is only the second on campus, is housed in the center's two-story classroom/office building.

"The capsule was placed in the wall in a prominent location near the dean's office with a plaque designating its significance and date to be opened. In this way, many future students and faculty will regularly see it and be reminded of the continuity that exists between generations of students, faculty, staff, alumni, and friends of COSAM," said COSAM Dean Stewart Schneller.

In recognition of the special event, Paul Hudson, co-founder of the International Time Capsule Society, was in attendance to present a special time capsule declaration.

"Time capsules serve as independent voices to the future and the artifacts enclosed in the COSAM capsule will delight the Auburn community. It is a fine memorial gesture," said Hudson, a time capsule expert who has been interviewed by media outlets including "The CBS News with Dan Rather," "48 Hours," NBC's "Today," CNN, *The New York Times*, *Time*, *Newsweek*, and more.

The time capsule included such artifacts as *The Auburn Plainsman* newspaper depicting student life in 2004; a COSAM scrapbook, which contains a wealth of historical and traditional information about the college and the university; plus memorabilia such as AU lapel pins, keychains, and more.

The College of Sciences and Mathematics in conjunction with leaders from Auburn City Schools coordinated an essay contest, which was open to fifth-grade students in the Auburn City School system. As a part of the contest, students were asked to write an essay describing how science and technology are used during a typical day in the life of a fifth-grade student during the year 2004.

The top 15 COSAM Time Capsule Essay Contest winners were also recognized during the ceremony. The top three winners were invited to place their essays in the time capsule. All top 15 students received a small COSAM Time Capsule T-shirt to wear to the dedication ceremony. They also received an invitation and a large T-shirt to wear to the opening ceremony in 52 years (2056) in conjunction with Auburn University's bicentennial celebration.



Closing the time capsule. From left: COSAM Dean Stewart Schneller; Jordan Ketting of Wrights Mill Road Elementary School in Auburn and first-place winner of the essay contest; Clara West of Cary Woods Elementary School in Auburn and second-place winner; and Jackson Norman of Wrights Mill Road Elementary and the third-place winner.

## — Inaugural Event —

**The Science Center Auditorium opened its doors for the first time on Nov. 2, 2004, for the 2004-2005 Littleton-Franklin Lectures In Science and Humanities, which featured guest speaker Lisa Randall of Harvard University's Department of Physics. Each person in attendance received a bookmark commemorating the auditorium's inaugural event.**



# Donating His “Share” To Science Education

## C. Harry Knowles

By Martha G. Barker

Just days after his retirement party, COSAM Alumnus Harry Knowles '51 sits in a two-story brick home in Haddonfield, N.J., enjoying a small plate of fruit and a croissant, but a relaxing breakfast during his first days of retirement, it is not.

You see, although the house at 20 East Redman Avenue is not his place of residence, it is home to a dream – a dream he and his wife, Janet, share of creating a means to honor the many dedicated science and mathematics teachers that helped shape their lives.

As a result of that dream, the Janet H. and C. Harry Knowles Science Teaching Foundation (aka the Knowles Science Teaching Foundation) was established in 1999 with the goal of supporting individuals and programs to encourage and sustain young scientists and mathematicians who dedicate their lives to teaching other young people and becoming leaders in the field of education.

To understand why the Knowles are so dedicated to the future of America's science and math teachers requires a trip back in time to Harry's days on the Plains as a physics student. He arrived on campus in the late 1940s where he lettered on the varsity wrestling team before taking two years off to join the Marine Corps.

Upon his return, he was actively involved in social and campus organizations including serving as editor of the *Glomerata* his senior year. When his grades began to slip under the pressure of outside activities, it was the influence of former AU Department of Physics head Howard Carr and his wife, Carolyn, that helped Knowles maintain his focus.



During an interview, published in the winter 2000 *Auburn Magazine*, Knowles said of his relationship with the Carrs...“When I was at Auburn, what Howard and Carolyn Carr were to me... I didn't realize until many years later how absolutely, incredibly formative they were in shaping me as a whole person.”

After earning his physics' degree, Knowles worked for several years in the semiconductor industry holding jobs with Bell Labs, Motorola, and Westinghouse before striking out on his own to unleash the inventor within. In 1968, at age 39, Knowles founded Metrologic Instruments Inc., and he has never looked back.

With Metrologic, he built the world's first laser kit, first on-press laser bar code verifier of UPC symbols, and first handheld laser scanner, just to name a few.

With a few trials and lessons learned under their belts Harry Knowles, as president and chief executive officer, and Janet, as vice president of administration at Metrologic, succeeded in building a multi-million dollar corporation known worldwide as a leader in imaging and scanning solutions.

Knowles is quick to thank his former teachers for his success.

“As you get older you begin to see the world more statistically and you say, ‘Wow, what is the root of my luck in being here?’ It is not luck. It is the teachers, and the one who began the whole sequence of incredible respect of teachers for me was

Howard Carr.”

Even though the Knowles created the College of Sciences and Mathematics Howard and Carolyn Carr Professorship in Physics in 1996, and donated annually to a national high school physics competition, they wanted to do something more.

“When Metrologic went public in 1994, the vision of making the business worth hundreds of millions of

dollars was not extraordinary so we began to conceive that, ‘Gosh, it would be great if we could do something in life that left a trail of excellence.’ We began to get fairly specific about how to take that kind of money and structure a program that will improve science and math teaching in the United States.”

Five years later, the Knowles poured their hearts and a large portion of their Metrologic stock into creating the Knowles Science Teaching Foundation. Not knowing exactly what they were doing, but with an idea of where they wanted to go, the Knowles took the advice of a friend and turned to Scott McVay (who had more than three decades of experience in organized philanthropy) for the answer. With McVay's help, they put together a board of trustees and began a search for “the best executive director” they could find.

“Keep in mind that when we did all this interviewing, the market value of Metrologic was only \$20-25 million. And so when we said we are going to be putting in the order of \$100 million into the Knowles Science Teaching Foundation, well, if I had tried to sell you a portion of the Brooklyn Bridge along the same time, it would have had the same credibility,” Knowles said.

In the end, the Foundation hired Angelo Collins Ph.D., and just as the name suggests, Collins and her rich background in science education was a godsend.

"For Angelo, who was a tenured professor at Vandy, to simply toss in that lifetime security and jump into this area of an incredibly and poorly conceived foundation with the faith of moving herself into a strange state and city and on a basis of 'trust me, everything is going to work out fine' was a leap of faith beyond what any reasonable person can or should attempt."

But Angelo did it, and she spent the entire next year traveling around the country looking at government programs, science programs, and other foundations while keeping Harry Knowles' goal in mind—"let's not follow a leader, but see if we can become a leader."

While on the road, there was one particular message that Collins heard loud and clear.

"There are people out there with degrees that would really like to be able to teach, but to leave a position to go back to school for their credentials is an impossibility," Collins said. "I also heard about the importance of mentors and about the lonely teachers in the classroom."

With that in mind, Collins set the Foundation's wheels in motion by creating a fellowship that would serve as a cornerstone, and upon that they would build in additional support in the form of mentors, extra funding, and conferences.

In 2001, Metrologic sales rose well past the \$100 million mark and in the fall, with enough money to support six fellows, the Foundation chose to run a "smoke test" and award its first set of fellowships. Collins sent a letter to all the physics departments in the country looking for folks with a physics degree who wanted to teach.

After reviewing written applications and conducting phone interviews, the field of applicants was narrowed to six. They were called to New Jersey for a two-day face-to-face interview process and, as a result, the first four Knowles Science Teaching Foundation Fellows were awarded.

The Fellowships are renewable for

up to five years, and there is a specific reason for that, Collins said.

"Five years wasn't just a number we made up. There is a boatload of evidence that if people can make it through the first three years of teaching then they can make it as a career. This dropout rate in the first three years is 50 percent and that includes all teachers," Collins said. "The first year you make it from day-



Harry Knowles and Angelo Collins

to-day and you are happy. The second year you start to try new things and by the third year you begin to feel that you know what you are doing. So we want to get them through the teacher education program, get them through their three years, and get them started on a professional trajectory."

In addition to educational classes and tuition support, the fellows also meet three times a year with each other and with science supervisors. The Foundation also takes other steps to

support its teachers. For example, if the teacher can prove they have a strong mentor relationship, the foundation will support the effort.

"One of our fellows talks to her mentor once a week so we help pay the long distance phone bill, and another wanted her students to be able to participate in a statewide competition so we helped her with the money needed to rent a bus," Collins said. "We also had a fellow who was trying to find a mentor and she wasn't successful, so she created a physics teacher association for her area. They meet once a month and we help sponsor their dinner."

It has been almost five years since the first fellowships were awarded and today the house on East Redman Avenue has become home to five full-time employees and more than 20 fellows. But, there is no time to sit back and relax. Their big plans for the future include eventually sharing their knowledge and views on science education with the country.

"We are looking at setting up a conference on science teaching with the crème de la crème of researchers in the country. A very select group of science teaching experts invited to a special place to focus on the entire topic of how we can continue to develop science teachers," Knowles said. "It is going to be a good two years before we can do that, but folks are already beginning to set up their schedules."

As Knowles, who still serves as the chief stockholder and chairman of the board of Metrologic, finishes his snack, there is one more question that must be asked.

"Did you think you would ever get to this point?"

Knowles, a true businessman who has faced the highs and lows of the corporate world only to come out on top, replied without even a blink, "Never any question."

To find out more about the Foundation and applying for a fellowship log on to: <http://www.kstf.org>.

# COSAM DEVELOPMENT MESSAGE



Tammy Beck Hartwell  
[becktam@auburn.edu](mailto:becktam@auburn.edu)  
334.844.1449

In January 2005, the Office of Development moved from the Alumni Center to the second floor of the Science Center classroom building, located on Roosevelt Concourse. In our new surroundings, we, through daily interaction with COSAM students and faculty, are able to witness the differences made by the generosity of our alumni and friends.

Although we have a new home, our focus remains the same – to increase funding for scholarships and professorships to recruit and maintain exceptional

students and faculty.

As Auburn University embarks on a \$500 million capital campaign, we ask that you consider how you can make a difference in the future of our college.

By contributing to the College of Sciences and Mathematics, you give a gift which has immediate effects and will have a lasting impact. The power to touch a life is in your hands. Please contact us today to learn more about how to take advantage of this awesome opportunity.



Sherri Rowton  
[rowtosj@auburn.edu](mailto:rowtosj@auburn.edu)  
334.844.1235



Jan Chamblin  
[chambvj@auburn.edu](mailto:chambvj@auburn.edu)  
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Dr. Jeffery Wit '93

*As of 12/31/04*

## **COSAM CALENDAR-2005**

|             |  |               |                                 |
|-------------|--|---------------|---------------------------------|
| March 1     | Auburn Society of Health Professionals Reception | April 23      | Young Alumni Baseball Picnic    |
| March 5     | Lifetime Achievement Awards                      | May 13        | Graduation Picnic               |
| March 8     | Birmingham Alumni Dinner                         | September 30  | Dean's Scholarship Golf Classic |
| March 15    | Atlanta Young Alumni Dinner                      | October 28    | Distinguished Alumni Award      |
| March 18-19 | Spring Advisory Council                          | October 28-29 | Fall Advisory Council Weekend   |
| March 19    | Family Weekend Picnic                            |               |                                 |
| March 29    | Huntsville Young Alumni Dinner                   | December 16   | Graduation Reception            |
| TBA         | Decatur, Alabama Alumni Dinner                   |               |                                 |

# Auburn Alumnus Honors His Sister Through Scholarship

By Katie Wilder

AU Office of Communications and Marketing

Inspired by his sister, an Auburn University alumnus has established a scholarship to benefit students studying the sciences and mathematics.

Jesse Duane May of Huntsville, a 1985 electrical engineering graduate, created the Jayna May Gillespie Endowed Academic Scholarship through a gift of \$26,000. May said the scholarship honors his sister, a 1993 Auburn graduate, who, despite being faced with medical ailments, has proven "resilient, optimistic, and truly inspirational."

Diagnosed with an aortic aneurysm, Gillespie, also a Huntsville resident, has undergone five operations to finally correct the disorder.



Photo courtesy of Jesse May

"Throughout all of her medical problems, Jayna has maintained a positive attitude and a love for life that touches all those that come in contact with her," May said. "Her courage, commitment and dedication to life are a true testament of the Auburn spirit."

"We hope to bring some good, strong doctors to the medical field through the scholarship," Gillespie said, adding that she and her brother are very close.

May is president of Chandler May, Inc., a company focused on system integration and software development for Department of Defense applications, including programs that are being used by the U.S. Army in Iraq.

Gillespie, who graduated from AU with a degree in nutrition and food science, is married to Woody Gillespie, also a 1993 Auburn graduate. A registered dietician, she currently stays at home with their five-year-old daughter, May Merrill Gillespie.

To be eligible for the scholarship, students must be enrolled in COSAM and be focused on a pre-health curriculum. Incoming and first-year students must have a minimum 3.5 grade point average and have scored a 29 on the ACT. Currently enrolled students must have maintained a 3.5 grade point average or higher. Preference will be given to students from the Madison County area.

"The College of Sciences and Mathematics is pleased to have this scholarship to offer to one of the many outstanding students who come to Auburn from Madison County," Lawrence Wit, COSAM's associate dean for academic affairs, said.

Recipients of the scholarship will be known as the Jayna May Gillespie Scholars.

# COSAM Honors Distinguished Alumnus

David Hagan has been named as the first College of Sciences and Mathematics Distinguished Alumnus for his many contributions to the college and its students.

"Men like David make it so that those of us in COSAM now can benefit from their efforts and what they did to get us here today," said COSAM Dean Stewart Schneller.

A graduate of Benjamin Russell High School in Alexander City, Hagan attended his first Auburn University football game at Cliff

Hare stadium in 1958. He began his studies at Auburn in 1961 and earned his bachelor's degree in pre-medicine in 1965.

He continued his education at the Medical College of Alabama in Birmingham (now part of UAB), receiving his medical degree in 1969. Following an internship and residency at UAB and chief residency at Carraway Medical Center, he was board certified in Internal Medicine and practiced Internal Medicine in Auburn from 1973 to 2003. He was elected a Fellow of the American College of Physicians in 1990.

Hagan has been a dedicated advocate for COSAM for more than a decade. A member of the COSAM Advisory Council since 1992, as well as a former Chairman of this distinguished group, he currently serves as Chair of COSAM's Development Committee and member of the Campaign Committee. In addition, he has been involved with the Dean's Scholarship Golf Classic since its inception.

The new Science Center complex is evidence of Hagan's tireless efforts on behalf of COSAM. He continues to lead by example and supports the college with both his time and his resources.

To be eligible for consideration as a COSAM Distinguished Alumnus, candidates should have achieved significant stature in their chosen field, whether business, academic, military or government. In addition, nominees should have a history of commitment to Auburn University and COSAM. Nominations are welcome from COSAM alumni and the general public and must be received by May 1, 2005.



David Hagan (left) receives congratulations from COSAM Dean Stewart Schneller.

# King of Hearts

By Martha G. Barker

From a desk drawer inside his office at East Alabama Medical Center, cardio thoracic surgeon Lee Roberson '89 pulls out an essay he wrote in the fourth grade. The essay entitled, "I want to be a doctor," is not only a memento from his childhood, but also a reminder of his dream come true.

"I always knew I wanted to be a surgeon," Roberson said. "I have a surgeon's personality. I see something that needs to be fixed then I fix it, and I know the outcome immediately."

The son of former Auburn baseball great Billy Ray Roberson, Lee Roberson knew Auburn University was the school for him, and in 1989 he earned his bachelor's degree in biology/pre-medicine.

As a fourth-year medical student at the University of Alabama-Birmingham Medical School, Roberson realized he wanted to specialize in cardio thoracic surgery after watching a routine bypass operation. He went on to do his fellowship at The University Hospitals of Cleveland and general surgery at the University of Mississippi Medical Center.

Roberson recently made history at the East Alabama Medical Center in Opelika, Ala., as the attending surgeon on an operation to repair a ventricular septal defect on the youngest patient to ever undergo this type of surgery at the hospital.

The 15-year-old patient, Debbie Rameriz, who was from a tiny village in Honduras, was born with a hole in her heart. Her doctors in Honduras had told her family that the defect would heal over time, but as time passed by she only became weaker. She was brought to the hospital through East Alabama Medical Center's outreach and a local missionary program and left with a new chance at life.

According to Roberson, surgery is his favorite part of the job, but it is what happens at the end of each surgery that he enjoys most of all.

"It is a miraculous moment when you see the heart begin to pump again on its own after surgery," said Roberson, who along with his team of doctors performs more than 400 surgeries a year.

For this doctor who believes "idle hands are the devil's advocate," each morning begins around 6 a.m. and ends around 7 p.m., which is a sign of his devotion to a career that doesn't leave much time for hunting, fishing, and golfing. But, he doesn't seem to mind.

"I just love it," Roberson smiled. "I whistle on my way to work each day and sometimes I have to pinch myself to make sure it is real."



## ***What was your AU experience like –***

"Auburn was the best ever. The whole time I spent at Auburn was wonderful. I was from a small town where everybody knew everyone and when I got to Auburn it was great because there were 21,000 people that I didn't know."

***Best professor –*** "My favorite professor was Dr. Larry Wit. I had him for anatomy and physiology and it was the best and yet the hardest class. Dr. Wit was a genius with a passion for teaching."

# Advisory Council



First Row: Michel Smith, Chuck Horton, Tanya Bradley, Linda Stone, Ginny Gammill Bourland, and Herb Martin. Second Row: Dean Stewart Schneller, Andy Morris, Kristy Myers, Suzan Voss, Overton Jenda, and Mary Beth Katz. Third Row: Danny Royal, Paul DePreist, David Hagan, Dan Phalen, and Ed Wampold. Fourth Row: Brandon Johnson, Jim Baird, Eugene Zallen, and Col. Hank Hartsfield. Fifth Row: Clay Harper, Bob Cook, Wallace Smith, Ralph Jordan, and Dent Williams.

## Alum Turns Passion Into Career

By Martha G. Barker

COSAM Alumnus Eric Harshbarger '92 became an inspiration to hobbyists around the world when he turned his pastime into a full-time career with help from his childhood LEGO collection and his mathematics degree from Auburn University.

"As a kid, I always wanted to build large things," said Harshbarger who now builds structures containing thousands of LEGO bricks for clients across the country and around the world. "If I had not studied math at Auburn, I am not sure I would be doing these. LEGO pieces are wonderful geometric and mathematical toys, and I sort of gravitated to it. It all started as a hobby and led into a business."

Harshbarger received his bachelor's degree in 1992 and master's degree in 1994, both in mathematics. In 1999, he returned to Auburn and his hobby after leaving his job as a computer programmer in San Francisco. Within a year, his hobby grew into a career. In 2001, he began building





large structures for companies to display at tradeshows and special corporate events. He also began fulfilling numerous media requests and has been featured on the cover of several magazines such as the December 2004 issue of *GAMES* magazine – which featured a snowman Harshbarger built for the cover.

Some of his creations include large sculptures such as an almost seven-foot, once fully functional, grandfather clock; a full-size desk he built for an executive in Seattle, which included 35,000 LEGO bricks; a mosaic of the New York skyline for LEGO Direct's Manhattan headquarters and three-foot sculptures of Bart Simpson, R2D2, and Alice in Wonderland, just to name of few.

One of his most prized creations is a 120,000-piece mosaic of the San Francisco skyline, which is probably the largest mosaic built by anyone, Harshbarger said. When asked what was his most requested item, Harshbarger replied, "wedding cakes."

Where does he get all those thousands of LEGO bricks? "Collecting LEGO bricks is a kind of sub-culture," Harshbarger said. He searches the Internet and attends tradeshows (where even the participants' nametags are made



of LEGO bricks) to find just the right pieces. Harshbarger says his creation of the Auburn University logo was a major undertaking because orange LEGO bricks are very rare. His LEGO collection has grown to include more than a million pieces, which he separates and stores by size and color in wooden card catalog cabinets once used in AU's Ralph Brown Draughon Library.

Today Harshbarger's work focuses mainly on mosaics and working with Magnetix, which is another popular building toy that is produced by the RoseArt Corporation.

"RoseArt found out about my work with LEGO and called one day to ask if I would be interested in working with Magnetix," Harshbarger said. "Every so often they'll ship 150 pieces and ask me to play with them and see what I can build." He recently flew to New York where he built a castle, which is now featured in a national commercial.

To read more about Harshbarger's exciting career and view some of his work, visit his Web site at [www.ericharshbarger.org/lego/](http://www.ericharshbarger.org/lego/)



# Alumni Updates



## Microwave Pioneer Receives Award

By Kathy Kowalenko

The next time you relax while listening to a favorite CD or use a phone that lights up in the dark, think of IEEE Fellow **Bernard Deloach, Jr.** '51. Not only did he find a way to extend the life of lasers for use in such products as CD players, but he also invented a process to incorporate visible light emitting diodes into telephones. Deloach, who earned a B.S., and M.S., in physics from Auburn, was a key figure behind the millimeter wave communication system for high-frequency applications.

To recognize these and other technical contributions he made in the fields of microwaves and optics, DeLoach received the Eta Kappa Nu Vladimir Karapetoff Award. This annual award is given to an electrical engineering practitioner who has distinguished himself or herself through an invention, development, or discovery in electrotechnology. Eta Kappa Nu is a U.S. electrical and computer engineering honor society.

Source: June 2003 issue of *The Institute*.



**Brian Barrett** '02, a biomedical sciences graduate and his girlfriend, Mandie Granger, a 2003 nutrition and foods graduate showed no fear on NBC's Sept. 13, 2004, couples edition of "Fear Factor." When all was said and done, the couple survived being locked in an underwater limo, eating rotten fish parts, and being handcuffed to a car suspended 150 feet in the air, to take home the \$50,000 grand prize. What was the hardest part of the whole ordeal? "Keeping the outcome a secret from our family and friends," Barrett said.



COSAM Alumnus **Brandon Johnson** '93, was recently named an honorary member of Alpha Epsilon Delta Pre-Health Honor Society for his dedicated work with COSAM's pre-health students. From left: Michael Smith, a biomedical sciences major with a concentration in pre-medicine, shadows Johnson at his practice in Tallahassee, Ala.



Brad Bailey was the first recipient of the Ben Fitzpatrick Fellowship in 2004. From left: Susan Poole, Elaine Bailey, Brad Bailey, **Margie Fitzpatrick** '60, **Jack Fitzpatrick** '92, and **Ben George Fitzpatrick** '81.



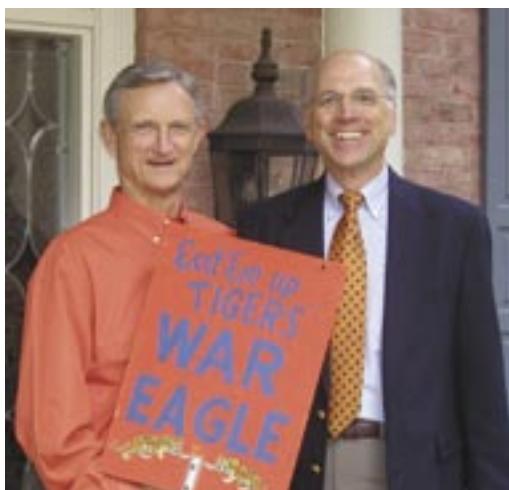
**Don Logan** '66, a math alumnus, was named one of four 2004 Lifetime Achievement Award winners by the Auburn Alumni Association. The Lifetime Achievement Award, the Auburn Alumni Association's highest honor, was established to recognize extraordinary accomplishments by members of the Auburn family. To be selected for the award, nominees must have attained prominence in their professional careers and be persons of integrity, stature, and demonstrated ability.



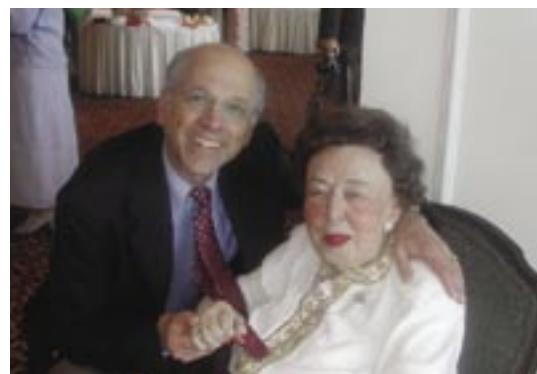
**Bill and Peggy Lazenby** hosted a hayride at their home for COSAM's Alpha Epsilon Delta Pre-Health Honor Society students. Bill Lazenby '53, was president of AED as a student.



COSAM Alumnus **Michael O'Brien** '79, D.M.D presents a check to Dean Stewart Schneller and COSAM Development Officer Tammy Beck Hartwell on behalf of the Alabama Dental PAC. The donation will benefit the Dr. Raymond M. Sims Memorial Scholarship for pre-dentistry students.



COSAM Alumnus **Jim Ott** '64 and **Dean Stewart Schneller** show their Auburn spirit during an alumni dinner the Ott's hosted at their home in Chapel Hill, N.C.



**Dean Stewart Schneller** visits with COSAM benefactor **Virginia Luker** during her birthday party in August in Gadsden, Alabama.

## BIRTHS

Twins, Katherine Margaret and Jackson Ellis, to **Dr. and Mrs. Timothy Day** '80 of Andalusia, Ala., on Oct. 13, 2003.

Zachary Richard, to Mr. and Mrs. Bill Thomas (**Laura Leigh Thomas** '92) of Panama City, Fla., on May 15, 2003. He joins Matthew, 3.

Twins, Jonathan Christopher and Mary Grace, to **Dr. & Mrs. Christopher Apostol** '92 on Oct. 9, 2002. They live in Augusta, Ga., where Christopher is a family medicine physician with the Evans Medical Group.

Chris Albert, to Mr. and Mrs. Edward Keller (**Elizabeth Ward** '94) on Jan. 31, 2003. They live in Panama City, Fla., where Elizabeth is a physical therapist.

Alexander Leo, to **Drs. Carolyn and Matthew Robbins** '94 of Barrington, N.H., on Oct. 12, 2003.

Jamie Elizabeth, to **Dr. and Mrs. Joe Jowers** '94 of Cullman, Ala., on Nov. 29, 2003. She joins Catherine Ann, 2.

Benjamin Allen, to **Mr. and Mrs. Christopher Marshall** '98 of Huntsville, Ala., on Jan. 20, 2003.

Meghan Elizabeth, to **Dr. & Mrs. Andrew Lee** '90 of Brentwood, Tenn., on July 16, 2003. She joins brothers Ryan and Garrett.

Mercier Meggs (Merci), to **Mr. & Mrs. Stephen Dearwent** '90 of Atlanta, Ga., on June 4.

Henry Stephen, to Mr. and Mrs. Stephen Mockalis (**Leslie Laye Mockalis** '92) of Acworth, Ga., on Jan. 5. He joins sisters Rachael and Sarah, 7, and Catherine, 3.

# *Alumni Updates*

## **DEATHS**

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**Howard Earl Carr, Sr. '36** of Auburn, Ala., died Aug. 7, 2003. He was the former head of the AU Physics Department and retired after 25 years. In addition, he served as a radar officer with the Navy in the 1940s, with the Air Force and Army in the 1950s and 1960s, and was a researcher and consultant at Oak Ridge National Laboratory.

**Cletus E. Morris '59** of Griffin, Ga., died Feb. 26, 2004. Morris received his bachelor's and doctoral degrees in chemistry from Auburn. He is survived by his wife, Nancy Morris, who also received her degree in chemistry from AU.

**John Albert Smyth, Sr. '40** of Stone Mountain, Ga, died Sept. 8, 2003. He was a World War II Army Air Corps veteran and retired from Opelika Manufacturing. He was previously the general manager of the J.P Stevens textile plant in Dublin, Ga., and president of Dublin Rotary Club.

**Eron Bernard Ingle, Jr. '55** of Opelika, Ala., died Dec. 15, 2003. He was a former doctor for the Auburn football team, and had been a pediatrician at The Pediatric Clinic in Opelika since 1977.

**James William Morrow, Jr. '61** of Carrollton, Ga., died Jan. 13, 2004. He was a former Army captain and practiced dentistry in Carrollton for 36 years. While at Auburn, he played football under Coach "Shug" Jordan and was a member of Kappa Alpha, Blue Key honorary, the Student Government Association, and the "A" club.

**Jack Hughston '38** of Cataula, Ga., died Sept. 6, 2004. A pioneer in the development of sports medicine, he founded The Hughston Clinic in 1949. He had been a leader in developing the Crippled Children's Clinic of the Public Health Department of Georgia. Founder of The Hughston Sports Medicine Hospital and the Hughston Sports Medicine Foundation, he started the American Journal of Sports Medicine, serving as editor from 1972 to 1989.

**Harry Irwin West, Jr. '46** of Livermore, Ca. died June 20, 2004. He had retired in 1990 after 45 years with the Lawrence Livermore National Laboratory, where he had designed an electron spectrometer for a NASA satellite dedicated to exploration of the earth's magnetosphere and trapped radiation. A fellow of the American Physical Society, he was a member of the American Geophysical Union.

## **MARRIAGES**

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**Donna Lynn Davis '89** to Michael Rocco Urgo on Sept. 6, 2003. They live in Frederick, Md., where Donna is a medical physicist with the Navy.

**Ross Parker Davis '97** to Mary Anna Isaacs on April 24, 2004. They live in Winston-Salem, N.C.

**Brooke Leigh Bondly '01** to Ron Williams on Dec. 27, 2003. They live in Birmingham, Ala.

**Dr. Tony McLeod '87** to Mary Ann Stiles on Nov. 27, 2004. They live in Auburn, Ala.

## **GENERAL**

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**Melissa Von Eschenbach '93** lives in Fayetteville, N.C., with her husband, Maj. Thomas Von Eschenbach and two sons, Jacob, 5, and Joshua, 3.

**Shana LeAnn Widick '03** received the Phi Kappa Phi Award of Excellence for 2003-2004 in recognition of her academic achievements.

**Mary Jane Mitchell Boylan '85** has been named manager of the computer center, asset management, and change management for Norfolk Southern Corp. She lives in Marietta, Ga., with her children, Savannah and Mitchell.

**Tracey Kelley Guidry '93** was named the 2004 J. Richard Ullom Rookie of the Year for the southeast region. Executive Director of the Boys & Girls Club of the Lake Martin area, she lives in Alexander City, Ala., with her husband, Blaine '04, and their children, Bailey, Jordan, and Aubrey.

**Capt. Manuel F. Ramirez '95** has been deployed to Iraq, where he is a military intelligence officer with the Multi-National Corps. He is stationed at Fort Hood, Texas.

**Michael Napp '00** has been named head boys' basketball coach at Northeast Jones High School in Laurel, Miss.