

# Pathways

Volume 1, Number 4



Episcopal Church Rector

Washington, D.C.



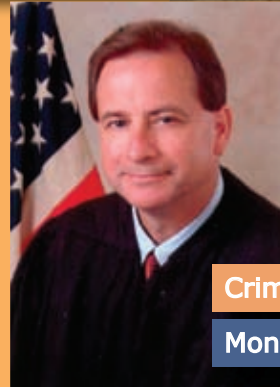
United Nations Senior Officer

Vienna, Austria



Exotic Animal Caretaker

Galt, California



Criminal Appeals Judge

Montgomery, Alabama



Interpreter

Rocky Mount, Tennessee



Middle School Science Teacher

Lake Worth, Florida

# Oh, the Places You'll Go!



# 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.

## Pathways

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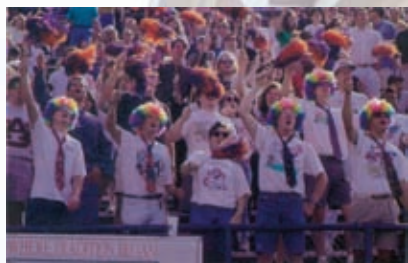
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# Pathways | 2007

## On the Cover



Nobel Peace Prize winner, exotic animal caretaker, attorney, historian, and more — once they were students on The Plains. Where are they now? Find out in...

**Oh, the Places You'll Go! page 9**

## Departments

**Dean's Message page 3**



**Alumni Updates page 15**

**Campaign Update page 15**

**A Day in the Life of Sarah Campbell page 16**

**Donor List page 17**



**Remembering Dr. Eugene Clothiaux page 18**

## Features



COSAM graduate, Chris Cilluffo, dishes on what it's like to produce Hollywood, big-screen magic in...

**The Man Behind the Curtain page 5**



Marion and Dorothy McHugh give new meaning to the word *retirement*...

**When Math Meats Beef page 7**



Under the leadership of Chancellor Jane Upshaw, the University of South Carolina Beaufort has become the fastest-growing institution in the state, but she's still a...

**Teacher at Heart page 13**



He was the quarterback on the 1957 national championship football team and a COSAM graduate. He's...

**Lloyd Nix: An Auburn Great page 14**



## MESSAGE From the Dean

As I travel extensively to meet alums of the college, I am consistently reminded of the diversity of pathways our graduates have followed to satisfying and meaningful careers. This issue of *Pathways* moves away from its traditional content of following one particular vocational thread, to presenting you with a sampling of the diverse destinations Auburn students have discovered after their years on The Plains.

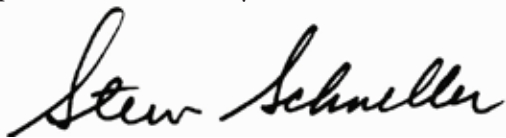
As a start, I thought you might want to try your luck at matching academic majors with the careers you will find herein. Highlighted in this issue are those with degrees in **mathematics, applied physics, biomedical sciences, chemistry, biochemistry, marine biology, and zoology**. Individuals with these majors have become (*answers on page 17*):

- An Alabama Court of Criminal Appeals Justice
- An AU championship quarterback-turned-dentist
- A U.S. Navy veteran now in the yacht-design business
- A rector at St. Patrick's Episcopal Church in Washington, D.C.
- The city manager for the City of Auburn
- An associate with an Atlanta law firm specializing in environmental law
- The chancellor of a Southeastern state university
- A mine foreman in Colorado
- The owner of the Rolling M Ranch where black angus breeding is managed
- A leader of the accounting and procurement unit for NBC's *Friday Night Lights*
- A participant in a living-history museum
- A special agent forensic scientist for the Tennessee Bureau of Investigation

It is our caring faculty who provide the mentorship needed for success. The Auburn family recently lost one of our faculty members, Gene Clothiaux, a highly regarded member of our physics faculty. This issue of *Pathways* brings us a look at Gene's role in guiding Auburn students.

Finally, take a look at one of our current students engaged in multiple activities, leading to diverse learning and enrichment opportunities. We bring to you one of those students, Sarah Campbell, whose academic career at Auburn is embellished with activities that can only serve to make her chosen career a more fulfilling pathway.

Thanks for reading about the people whose lives truly represent the Auburn way,



Stew Schneller  
Professor of Chemistry and Biochemistry  
and  
Dean





*I* M A G I N A T I O N . . .



**"Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand."**

— Albert Einstein



COLLEGE OF SCIENCES  
AND MATHEMATICS

# The

# Man Behind the Curtain...

- Timothy Meeks



“It’s ironic that those late-night, math study sessions gave me the skills to be successful in my career, but also connected me to my passion — making movies.”

— Chris Cilluffo





**“The man behind the curtain” accurately describes Chris Cilluffo (Mathematics, ’95). Much like the iconic character in the 1939 MGM classic, *The Wizard of Oz*, he intimately knows all the levers, gears and tools necessary to produce screen magic. The land in which Cilluffo works is not Oz, but very close to it: Hollywood.**

A wide range of experience in production, publicity and accounting, in both feature films and television, gives Cilluffo a sound knowledge of the inner workings of the entertainment industry.

“We go to the theater or turn on the TV and see the end product,” Cilluffo said. “Often it is a two-hour movie or a half-hour sitcom.” However, he explains, a scene that appears on screen for a few seconds “may have required the coordination of hundreds of people, hours upon hours of preparation and a cost that is hard to imagine.”

On location in Austin, TX, where Cilluffo is leading the accounting unit for the NBC series, *Friday Night Lights*, his perspective is clearly visible at a typical shoot for this network production.

“If we are shooting a high school football game, each of the 2,000 people in the stands is considered an extra. There is a tendency to focus on the main actors,” Cilluffo said, “but everybody there is part of the production, including a large crew behind the camera that you never see.”

Responsible for making sure everyone gets fed, paid and managed according to Screen Actors Guild guidelines, and also accountable to the parent company that finances the program, Cilluffo manages an intricate balance where bottom-line costs are closely scrutinized.

Expenses on a production don’t end with paying the actors. Cilluffo fondly remembers the time he needed to purchase a helicopter for the television series *The Unit*.

“Where do you buy a helicopter? Do you look on eBay? What do you put on the purchase requisition?” Cilluffo asked.

Often it takes diplomatic negotiations with management and crew, along with a little creativity to build a set. Cilluffo emphasizes that authenticity in production is paramount to success.

“We’ve all seen when it works and sometimes, painfully, when it does not,” Cilluffo said.

Over the course of his career, Cilluffo has worked with Hollywood A-List celebrities including John Travolta, Nicholas Cage and Gwyneth Paltrow. Following a cardinal rule of the industry, he is understandably reluctant to dish on who was easy to work with and who may have created drama on the set. However, he is quick to point out that even Hollywood stars deal with

everyday issues of balancing careers and family.

“They are people too and I have often been surprised with how assumptions about their public persona differ from what they are really like,” Cilluffo said.

A chance meeting on the set of the CBS drama, *The Unit*, introduced Cilluffo to one of the actors and also provided a sense of the Auburn family. Michael O’Neill (Liberal Arts, ’74), who plays a recurring character on the series, caught up with Cilluffo following a shoot.

“We weren’t on campus at the same time, but our conversation quickly turned to all things Auburn,” Cilloffo said.

As an undergraduate at Auburn, Cilluffo connected his academic pursuits with his interest in films.

“In some of those upper-level mathematics classes, we would be working as a group on one single proof — and it was tough,” he remembered. “Usually around 2:30 a.m. we would just have to have a break and we would pop in a movie.”

The rigorous math curriculum trained Cilluffo in problem solving and the ability to manage complexity.

“It’s ironic that those late-night, math study sessions gave me the skills to be successful in my career, but also connected me to my passion — making movies,” Cilluffo said.

Chris Cilluffo is a film and television purist, constantly looking for visionaries who are intent on producing great work. He has been involved with a wide range of productions — not all commercially successful — and has grown professionally with each experience. Even the critically panned and poorly received Patrick Swayze film, *Letters From a Killer*, provided a learning opportunity.

Cilluffo has a home in Los Angeles, CA, but will remain on location in Texas for the duration of *Friday Night Lights*. His work dictates a nomadic existence.

“In the business, every show has an ending, every movie a wrap. You are always thinking about what’s next,” Cilluffo said.

What is next for Chris Cilluffo? A documentary on his hometown of Newburyport, MA is a possibility. A draft of a comedy screenplay (highly confidential, of course) could have audiences rolling in the aisles. Cilluffo’s Auburn connection also presents some intriguing possibilities, as he is eagerly anticipating Amazon’s delivery of the recently published book, *Auburn Man: The Life and Times of George Petrie*. Could the story of the man who brought football to Auburn University and penned the Auburn Creed be headed for the silver screen? If so, Chris Cilluffo is the man to bring it to you.



# When Math Meets Beef

— Timothy Meeks



**D**rive by the picturesque Rolling M Ranch outside of Tignall, GA and you will likely note two inviting rocking chairs on the front porch. There is a good chance the rockers are unoccupied because Dorothy (Mathematics, '63) and Marion McHugh (Industrial Management, '63) are tending to 500 acres of pasture land, miles of fencing, and up to 250 Black Angus cattle. It's a vocation that requires hard work, 365 days a year. What gives the McHughs the drive? Likely the same work ethic and passion that sustained them before retirement in their "first" careers.

The McHughs' rocking chairs would be a perfect place to hear the tales of Dorothy and Marion's careers and travels with Northrup Grumman, the airline manufacturing innovator of the early 60s. Marion could tell the story of the time he walked Britain's Prime Minister, Margaret Thatcher, across the wing of a B2 Bomber (after she kicked off her heels, of course). Dorothy could recount the challenges of starting a youth-soccer league in Saudi Arabia, where women certainly didn't organize soccer and girls would never run around in shorts. The stories of the McHugh family, including those of their four children, are engaging, but must be told as you are walking or riding to the pasture. On the Rolling M Ranch, there is always work to be done.

Raising Black Angus cattle is a highly specialized process, but Dorothy maintains that the most important factor is a love for the breed.

"In recent years, the trend toward breeding for size has not been good for Black Angus — their frames cannot support the bigger weights," Dorothy said. "You have to know the ideal characteristics, strengths and weaknesses to produce healthy cows."

Not unlike the bloodlines of thoroughbred racehorses, the lineage of each calf is carefully tracked and managed. It is an unusual application of Dorothy's mathematics background, but she has developed custom



Marion and Dorothy McHugh, owners of Rolling M Ranch.





**Marion McHugh, who is certified in artificial insemination, manages the embryo fertilization process.**

software programs to track fertility times, projected due dates, and ideal breeding matches, all of which provide the best chance for healthy offspring. It is an odd juxtaposition: high-tech systems managing one of the animal world's most basic activities — producing babies. Radio-sensor patches attached to the rear quarter of the animals transmit signals back to the barn indicating a cow in heat. Marion, certified in artificial insemination, manages the embryo fertilization process, while Dorothy calculates calf-delivery windows.

The culmination of the McHughs' hard work comes during their annual sale in October. Commercial breeders from across the Southeast come to review and purchase the purebred-cattle stock. A live auction, tiered seating in the barn, and a healthy dose of McHugh hospitality make for a festive atmosphere. By the end of a frantic day, filled with close inspections, shouted bids, and the movement of scores of cattle, another season is complete and the sense of satisfaction is well earned.

"We take a deep breath at the end of the day," Dorothy said. "But, early the next morning, or sometimes even sooner, we get right back to work."

The cattle at the Rolling M Ranch are certainly impressive in appearance, but the McHughs also have numbers to back up the quality of the herd. For example, Expected Progeny Difference (EPD) is a ranking which gauges genetic merit for maternal ability in cows.

According to the McHughs, "the animals are bred to produce calves at a minimum in the top 25

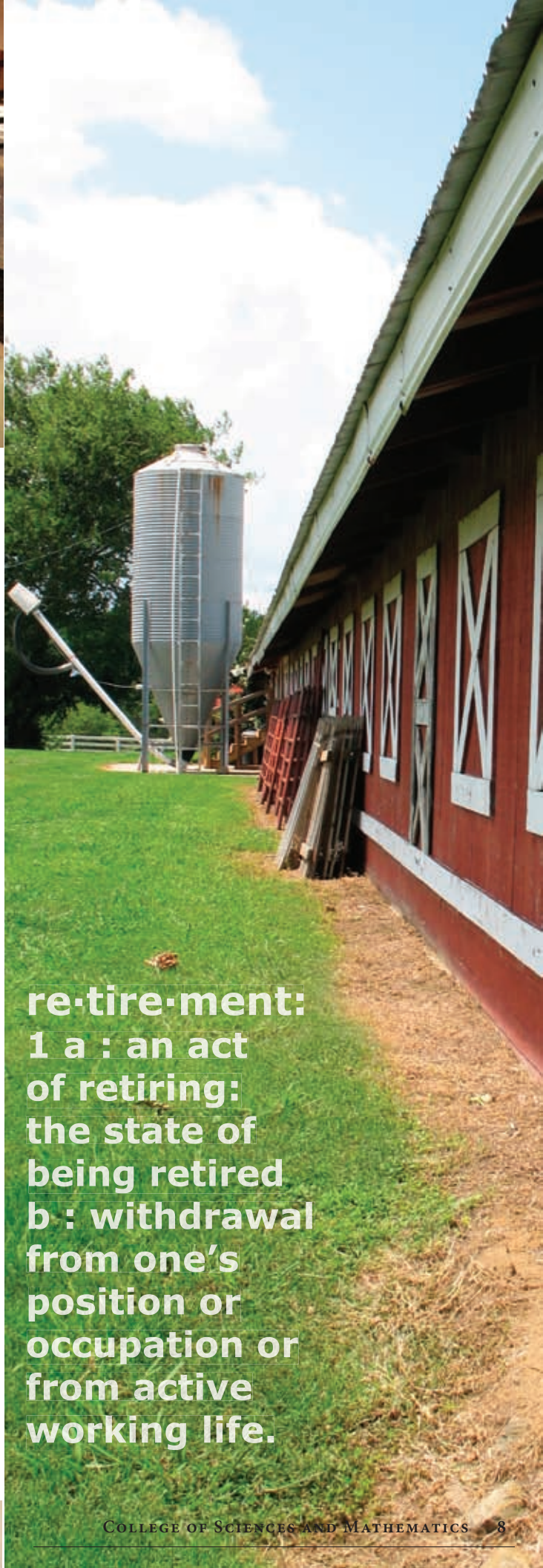
percent of the Expected Progeny Difference of the Angus breed as defined by the Angus Herd Improvement Program. Many record EPDs in the top 5 percent."

Using both high-tech systems and plain hard work, the McHughs are confident they are contributing to the advancement of the Black Angus breed.

While the focus of Rolling M Ranch is on Angus production, the McHughs have also committed to both conservation and recreation. A comprehensive vision for land, pond and wildlife management reflects a commitment to sustainable agriculture and stewardship. An annual Fourth of July cookout, field trips from local schools, and an inviting fishing pier, welcome family and friends to the fun aspects of life on the farm. An eclectic mix of dogs, donkeys and horses, which Marion describes as "pasture ornaments," completes the down-home setting of the Rolling M Ranch.

Remarkably, Dorothy and Marion McHugh exhibit the same energy they had when they left Auburn University over 40 years ago. It's a sign that they have found their calling — and not for the first time. The McHughs will both tell you that "*we are not as young as we used to be.*" However, their work ethic, commitment, and grounded nature are truly inspirational.

The front porch and rocking chairs continue to provide an inviting entrance to Rolling M Ranch. If you get the chance to stop in, bring your brains and your boots, because there is likely work to be done.



**re-tire-ment:**  
**1 a : an act**  
**of retiring:**  
**the state of**  
**being retired**  
**b : withdrawal**  
**from one's**  
**position or**  
**occupation or**  
**from active**  
**working life.**



# Oh, the Places You'll

**B**rian Busta (Marine Biology, '95) is an exotic-animal caretaker at the Performing Animal Welfare Society in Galt, CA.

The organization rescues animals who have been abused or abandoned, who have retired from performance venues such as circuses, or who are victims of the exotic-animal trade. Busta currently spends most of his time caring for land-loving animals — two retired performance elephants named Nicolas and Gypsy.

“The majority of my marine biology studies focused on general-animal biology, so the degree has helped out a lot. It was perfect for me,” Busta said of his background in COSAM.



Photo by Janice Clark

**“I know it’s sad that I am an Auburn grad and working with pachyderms, but I’ve made my peace with it.”**

— Brian Busta

**“M**ining is a tremendous career,” said Richard Phillips (Mathematics, '72), who has 31-years of experience in the mining industry in Durango, CO.

Phillips began his career in mining after graduating from Auburn University.

“While I was going to Auburn I worked my summers at a scout camp in New Mexico,” Phillips recalled, “so when I graduated I said, ‘Boy, I love the West,’ and I moved west and that’s where I’ve been ever since.”

Phillips has enjoyed a successful career, due in part to his undergraduate experience at Auburn University.

“My ability to learn and communicate with people and utilize the skills I learned, the knowledge I gained from the mathematics degree, helped me move through the industry to become a mine foreman,” Phillips said.



Photo courtesy of Richard Phillips

**“You learn so much more at school besides what’s in the books, and I don’t think you can replace college with anything as far as learning experiences are concerned.”**

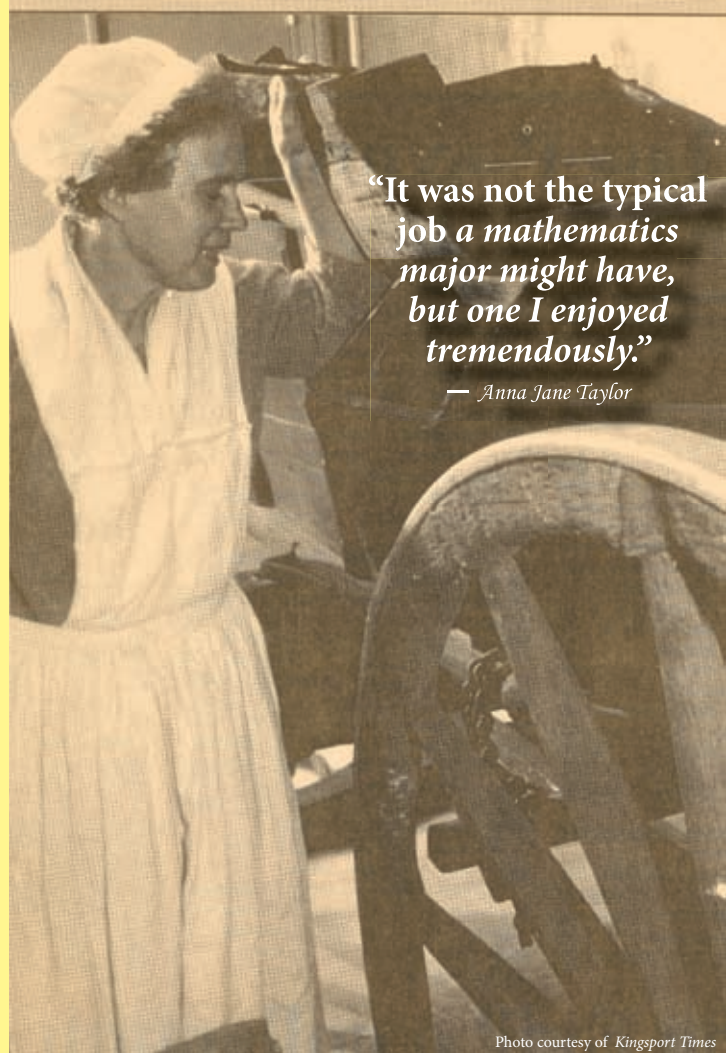
— Richard Phillips



Photo courtesy of Elizabeth Duncan Eubanks

**“I love being around all of It reminds me of college and why I**

— Elizabeth



**“It was not the typical job a mathematics major might have, but one I enjoyed tremendously.”**

— Anna Jane Taylor

Photo courtesy of Kingsport Times



# Go With COSAM!

**M**iddle school science teacher, Elizabeth Duncan Eubanks (Zoology, '97), got the chance of a lifetime this summer when she was selected to participate in the National Oceanic and Atmospheric Administration's Teacher at Sea program. In July, she boarded the ship, *David Starr Jordan*, for a two-week trip with a group of researchers to study sharks in the waters of the Pacific Ocean off the California coast.

Eubanks kept a log of her journey which can be found on the NOAA website at [www.teacheratsea.noaa.gov/2007/eubanks](http://www.teacheratsea.noaa.gov/2007/eubanks). "I love being around all of these scientists and research," she wrote. "It reminds me of college and why I have always loved science so much."

***these scientists and research. have always loved science so much.***  
Duncan Eubanks

**A**нна Jane Taylor (Mathematics, '55) was looking to the future when she graduated from Auburn University. Ironically, it is in the past where she found her true calling — over 150 years in the past!

Following a year of graduate school at the University of Tennessee, Anna Jane Gritz married Charles Taylor and together they raised three children. With the children grown, she followed the suggestion of a friend and attended a training session at nearby Rocky Mount Historic Site, a living-history museum. "The goal of Rocky Mount is to make 1791 come alive," Taylor said. "I worked as interpreter there for the next 13 years. We wore costumes for the time period, gave tours in the first person, and taught crafts to school children, including stenciling, fireplace cooking, weaving and colonial games."

Rocky Mount is the oldest existing territorial capital and played a significant role in shaping the future of the early United States of America. In 1791, President George Washington appointed William Blount as Governor of the Southwest Territory to conduct the business affairs of the new territory. Visitors to the living-history site can step back in time to interact firsthand with interpreters like Taylor, who look and act the part of an early American settler.

Taylor, who is now retired, said, "It was not the typical job a mathematics major might have, but one I enjoyed tremendously."

Although no longer in costume, Anna Jane Taylor still remains eager to tell the story of Rocky Mount.

"Come and visit sometime. We really do make history come alive," Taylor said.

**J**udge James Shaw (Chemistry, '79) graduated from Auburn with an eye toward attending medical school, but there was one problem.

"One of the things I discovered is that I didn't like blood very much," Shaw said.

He continued his studies in chemistry, but decided to apply to law school instead.

"I thought Cumberland (School of Law) would find the chemistry background interesting, something out of the ordinary," Shaw said.

He was right. Shaw graduated from Cumberland School of Law in 1982 and soon after began a 16-year stint as a staff attorney for the Alabama Supreme Court. Then, in 2000, Shaw ran for a seat on the Court of Criminal Appeals, was elected, and took office for his first term in 2001. He is currently serving his second term.

***"Even though I do not use chemistry in my everyday work, my ability to analyze chemistry problems helps me focus and analyze legal cases today."***

— James Shaw



Photo courtesy of James Shaw.

**D**avid Coffey (Applied Physics, '65) has harbored a life-long fascination with boats, ships, sailboats and yachts.

So, following his graduation from Auburn University, Coffey joined the United States Navy in an effort to nurture his passion for sea-faring vessels. After leaving the Navy, he began working for The Hinckley Company, a prominent yacht-building organization based in Maine.

"Having my foot in the door, I began to find out everything I could about the yacht-building business," Coffey said.

Coffey left The Hinckley Company for a yacht-design company called Wilbur Yachts, where he established himself as the boatyard's in-house draftsman designer.

"All the while I was buying books and studying so that by the time I got through working for the Wilbur Company, I had pretty well come up to speed," Coffey said of the experience.

In 1986 Coffey started his



Photo courtesy of David Coffey

own yacht-design business, D.C. Coffey & Company.

"I'm sort of a self-taught or self-directed study," Coffey said of his path to building his company.

Although his yacht-building and design skills are a result of self-discipline, motivation, and an ever-present curiosity for watercraft vehicles, Coffey credits his bachelor's degree in applied physics for part of his success.

"My time spent at Auburn provided me with a foundation to understand what I was looking at," Coffey said.

***"Many of the technical things I studied I use all the time now."***

— David Coffey



# Oh, the Places You'll

**H**ilary Strickland (Marine Biology, '06) has nine siblings.

In her native Huntsville, AL home, there was seldom a shortage of children. Little did Hilary know that during her internship at the John G.



Photos courtesy of Hilary Strickland

Shedd Aquarium in Chicago, IL, she would adopt an even larger family.

“The beluga whales are very intelligent and social animals,” Strickland said. “They all have unique personalities and would often have issues with sharing of toys or a need for attention. I will always remember Kayavak — one of the females who always had a unique greeting for me.”

It wasn't all fun and games for Strickland. She learned train-

ing techniques in her work with pacific white-sided dolphins and studied husbandry behaviors in all of the animals, including penguins and beluga whales.

Strickland's internship is complete and she is looking forward to her next opportunity to work with marine life. However, a return trip to Chicago is likely in order — Kayavak recently delivered a calf and Strickland can't wait to meet the new member of the Shedd family.

***“The beluga whales are very intelligent and social animals.”***

— Hilary Strickland

**D**r. Kathy Pearson (Mathematics, '84) may not be able to tell the future, but she has developed a reputation as a sound strategist whose forecasting abilities are in high demand in the quickly evolving global dynamics of the 21st century.

Pearson, an adjunct professor at the world-renowned Wharton School at the University of Pennsylvania, has impressive credentials in both academia and the private sector. In addition to her teaching and research load in the Operations and Information Management Department at Wharton, Pearson also lectures for Duke Corporate Education and CEDEP at Insead, France, and conducts a wide range of consulting duties through Decision Strategies International (DSI). With a stated mission to “help organizations develop a strategic compass to be prepared for whatever unexpected events come their way,” DSI has compiled an impressive array of experts who consult with over 200 organizations, including five of the Fortune 10.

“Mathematics provides a strong foundation for analytical skills,” Pearson said. “I speak to corporate decisions makers



Photo courtesy of Kathy Pearson

who operate in an atmosphere of increasing time pressure and uncertainty. Developing real options is founded in analytical thinking.”

Kathy Pearson has her eye on the future. However, the 2007 Wharton MBA class has honored her in the present, with a “Goes Above and Beyond the Call of Duty” award.

***“Making decisions in an atmosphere of increasing time pressure, uncertainty, and conflicting advice creates challenges ...”***

— Kathy Pearson



Photo courtesy of Elizabeth McWhorter

**S**he was called to the priesthood in 1957 at the age of 8, but at that time, women in the Episcopal Church could not be ordained priests.

“Women really couldn't do much in the Church in 1957,” explained Reverend Elizabeth McWhorter (Mathematics, '70). “So, I went to Auburn and got a major in mathematics. And then, when the Church said that women could be ordained, I decided to move on that.”

When McWhorter's background in mathematics was questioned by a bishop, McWhorter explained that math and her new career path compliment one another perfectly.

“I said, ‘Well sir, I figure I will be listening to people and their problems and their

questions, and math teaches you to think and solve problems, so I think it's a really good fit,” McWhorter recalled.

McWhorter is currently the Rector of St. Patrick's Episcopal Church in Washington, D.C., but in December she will move to St. Mary's Episcopal Church in Tuxedo Park, NY.

“It's that analytical thinking and asking questions, that both math and science call forth, that I use everyday,” McWhorter said as she reflected on her vocation. “I ask myself, ‘What does the text say?’ and ‘What do the people want to hear?’ and ‘How can I put it all together?’ I think to myself, ‘What are the questions? What are the issues? What might bring comfort?’ I think it's that analytical thinking and creative seeking that I certainly got trained in at Auburn.”

***“I had wonderful professors in the school of mathematics. I never thought about switching to something else. I signed on and went right through it.”***

— Reverend Elizabeth McWhorter



# Go With COSAM!

**S**pecial agent forensic scientist, Chuck Hardy (Biochemistry, '95), knows he was destined to be an Auburn Tiger. Not only are his parents and most of his family Auburn graduates, but it was as a student that he was led to a career in the forensic sciences. As a senior, he attended a presentation by the Alabama Department of Forensic Sciences and was hooked. Though his path was a winding one following graduation, he found his way to a position with the Serology/DNA Unit of the Tennessee Bureau of Investigation (TBI).



Photo courtesy of Chuck Hardy

As a forensic scientist, Hardy inspects crime-scene, physical evidence, then chemically tests any questioned stains to determine if there are biological samples present. He takes the sample and extracts the DNA to create a unique profile to be compared to the victim or suspect in a case. Hardy is a commissioned agent with the TBI, and is the team leader of one of five Violent Crime Response teams, which provide assistance statewide. Additionally, Hardy participated in hazardous-materials training and is a part of the Terrorist Incident Response team.

***"I never had any plans to go anywhere but Auburn...I guess you could say I was destined to be a Tiger."***

— Chuck Hardy

**H**ow does one go from an undergraduate degree in Applied Physics to holding the position of City Manager for the City of Auburn? Ask Charlie Duggan ('90).



As an undergraduate, he worked for the city of Auburn helping to organize the soccer league in the Parks and Recreation Department. Following graduation, he was offered a full-time position as the Athletics Specialist. From there, Duggan held a variety of jobs for the City, including City Director of Special Programs, Deputy Director of Information Technology, and Assistant City Manager. By October 2006, after serving more than 15 years, he was named City Manager.

physics has helped to shape his career.

"One of the biggest things I learned that has helped me, is to focus on the basics. Like in research — you take a hypothesis, then test it and see how it comes out. It's the same in life — you can't know where you are going unless you know where you are," Duggan said.

Despite his extensive, hands-on experience in city government, Duggan believes that much of what he learned as an undergraduate student in applied

Duggan also credits professors like Eugene Clothiaux and John Williams for providing a positive and inspiring example.

***"They (the professors) really enjoyed what they were doing. I learned to wake up and look at the 'challenges' of the day instead of the 'problems.'"***

— Charlie Duggan

**A** career with the International Atomic Energy Agency (IAEA) and a share of the 2005 Nobel Peace Prize were the last things John Oakberg (Mathematics, '69) saw in his future when he graduated from Auburn. With his mathematics degree and a Fortran course taken his senior year, Oakberg got a job with Union Carbide's Nuclear Division. After earning a master's in computer science, he was invited to work developing software for the IAEA in Vienna. He and his wife Linda (History, '69) spent 18 months there, and upon returning to their hometown of Oak Ridge, TN, realized how much they enjoyed their life in Vienna.



Photos courtesy of John Oakberg

Oakberg pursued opportunities in the IAEA so they could return, and they did so with the expectation of a four-year stay. Twenty-five years later,

he is preparing for retirement and their return to Tennessee this fall, with memories of a successful international career.

"As far away in my thoughts that I would spend so many years with a U.N. agency and live in Europe, was that I would ever be related to a Nobel Peace Prize, even as just one staff member among all of those at the IAEA," he said. "It is an indescribable, overwhelming and awe-inspiring feeling, and an achievement of which we are very proud."

***"... that I would ever be related to a Nobel Peace Prize ... is an indescribable, overwhelming and awe-inspiring feeling ..."***

— John Oakberg

**G**reg Ness (Biomedical Sciences, '01) is a first-year associate in an Atlanta-based law firm specializing in land use and environmental law. Ness coordinates environmental due diligence assessments and counsels clients on environmental liability and risk allocation.



Photo courtesy of Greg Ness

After earning a degree in biomedical sciences, in addition to his Juris Doctorate, he obtained a master's in molecular biology and a master's in environmental law. He is admitted to practice in Georgia, Kentucky, Washington, D.C., several federal courts and the U.S. Patent and Trademark Office.

***"I frequently call on concepts that I acquired from my COSAM classes to understand the nature of hazardous substances and their potential effects ..."***

— Greg Ness



# Chancellor Jane Upshaw:

## *Teacher at Heart*

– Carol Nelson



Photo by Harry Middleton  
Courtesy of *The South Magazine*



Photo courtesy of USCB



Photo courtesy of USCB

Jane Upshaw (Mathematics, '69) knows that what goes on in the classroom is the heart and soul of the university experience. That is why she accepted the offer to become the head of the University of South Carolina Beaufort (USCB), and the first woman to lead a University of South Carolina campus.

"I am a faculty member at heart," she said. "When I became the head of USCB, it was a regional campus that was not separately accredited and offered associate degree programs. I was only interested in the position to be able to provide direction in leading USCB to become a senior campus, and a four-year, baccalaureate-degree-granting institution."

And that is what she did. In 2002, after approval was received for the change in role and mission to baccalaureate status, she was named chancellor of the university. As of fall 2007, USCB offers 12 baccalaureate degrees, and is the most rapidly growing institution in the South Carolina system with a 45 percent student body increase since 2002. As chancellor, Upshaw has also had the opportunity to oversee the construction of a second \$40 million campus that opened in 2004 in Hilton Head/Bluffton.

Upshaw says she has always believed in the importance of education.

"My parents were always involved and held a strong belief in the value of education, and passed that on to me," she remembered. "They were my greatest influence, along with my teachers who inspired me to study mathematics, and who gave me the best education experiences along the way. Everything that I have done in my career, I owe to Auburn University's mathematics department, my professors, my Auburn education," she said.

It is for this reason that Upshaw has served on Auburn's Alumni Board for the last four years.

"I believe in Auburn; I believe in the Auburn experience. I think that we are all called to give something back, and I have been able to do so through my experiences on the board."

Upshaw looks forward to continuing to develop educational opportunities on both USCB campuses, as well as supporting Auburn's educational objectives. She also believes that all institutions should be involved in conveying the importance of mathematics, regardless of field of study.

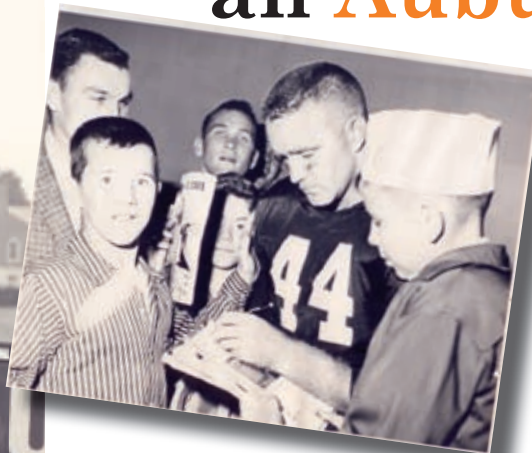
"I have applied mathematics skills in my work, and continue to do so every day," she explained. "Mathematics provides the problem-solving skills that are critical to everything we do, whether we are education majors, English majors, or sciences and mathematics majors," she said.



# Lloyd Nix

## Champion, Leader: an Auburn Great

– Candis Hacker



Photos courtesy of Lloyd Nix

### Lloyd Nix Facts:

- Nix has two daughters and six granddaughters — all Auburn fans of course.
- “It’s Great to be an Auburn Tiger!” is Nix’s favorite Auburn cheer.
- Since 1954, Nix has missed only two Iron Bowls: In 1963 and 1964, he was unable to attend because he was serving in the United States Air Force.
- Brandon Cox is the only left-handed quarterback Auburn has had since Nix.
- In his free time, Nix loves to quail hunt.
- In 1994, Nix was elected to the Alabama Sports Hall of Fame.
- Nix’s prediction for Auburn’s next great championship football team: “I had thought it would be in ‘08, but the problem is, we will go into the season with an inexperienced quarterback. If he can learn all he needs to learn, then I think we have a chance to be a great team.”

Much has changed in college football in the last 50 years according to Lloyd Nix (Pre-Dentistry, '59), the starting quarterback on Auburn's 1957 national championship football team.

“Really, football has just completely changed. We played both offense and defense and now you have specialty teams. And Alabama wasn't much of a rival back then — Georgia and Georgia Tech were our main rivalries,” Nix said.

As an observer, Nix will tell you that despite the evident changes in the way football is played today, there is one quality that has remained unshaken.

“The SEC is the best football conference in the country,” Nix insisted. “We beat up on each other every week. It was difficult, very difficult, to go undefeated back in 1957. I don't know for sure if it's more difficult to do today, but it probably is because they play more games.”

In addition to a national championship in football, Nix was named All-SEC first baseman for the 1958 SEC championship baseball team, he was undefeated as a starting pitcher on the 1959 baseball team, and he was the recipient of the Cliff Hare Award in 1959.

Along with great athletic achievements, were achievements in the classroom — Nix was named Academic All-SEC in 1957 and 1958.

“It really takes a lot of hard work to be successful,” Nix said as he reflected on

his days as a student, “and time management is the secret to that success.”

Despite a national championship in football and many on-and-off-the-field accolades, Nix's fondest memory of Auburn was meeting his wife, Sandra “Sandy” (Education, '60), who was Miss Homecoming in 1958.

“We met on a blind date,” Nix recalled. “Our marriage has been great and lasting...she's the best thing that has ever happened to me.”

Nix's undergraduate education not only led him to his wife-to-be, but also helped shape his future by preparing him for dental school.

“The main thing I learned and remember about COSAM is that we got the best, or one of the best, undergraduate educations out of any school in the Southeast. And that's still the case. Auburn graduates are highly respected in dental and medical school. If you are planning to attend dental or medical school, I highly recommend COSAM at Auburn University,” Nix said.

Nix also recommends that alumni make financial donations to Auburn to help ensure an exceptional education for future generations of Auburn students.

“One of the biggest reasons that Sandra and I give is because we want our grandchildren and other students in the state of Alabama to have the same opportunities and experiences that we had. There is nothing about our Auburn experience that we regret at all,” Nix said proudly.



# ALUMNI Updates



**Maj. Gen. A.C. Blalock** (Mathematics, '71) was appointed adjutant general of the Alabama National Guard in August by Governor Bob Riley. Prior to his appointment, he served as commander of the 167th Theater Sustainment Command in Birmingham, AL. He was commissioned in 1971 after completing ROTC

at Virginia Military Institute and Auburn University, and has previously held five different command positions in the Alabama National Guard. Blalock has been honored with a number of awards and decorations including the Defense Meritorious Service Medal, the Army Commendation Medal and the Humanitarian Service Medal.



**Herman W. Turner** (Biomedical Sciences, '04), an alumnus of the 2000 Summer Bridge program, was the keynote speaker for this year's Summer Bridge luncheon. Turner recently earned a Doctorate of Physical Therapy degree from Alabama State University and was awarded the American Physical Therapy Association's Minority Award for Academic Excellence at PHYSICAL THERAPY 2007 in Denver, CO. Dr. Turner is on the staff of Cooper Green Hospital in Birmingham, AL.



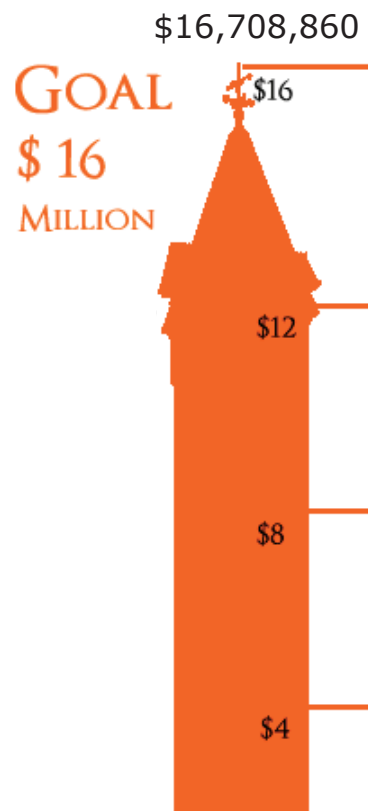
**Eric Manahan** (Zoology/Entomology, '91) has been named director of Southeastern Breast Care Specialists. Formed to treat a wide range of breast abnormalities, Manahan leads a team of board-certified surgeons in the latest advances in this specialized area.

"Because of high prevalence of breast cancer and dramatic advances in treatment and

technology, we want to focus in this area to ensure the best possible treatment," Manahan said.

Dr. Manahan is a fellow of the American College of Surgeons, a member of the American Society of Breast Surgeons, and a member of the American Medical Association.

# COSAM Exceeds Campaign Goal



The College of Sciences and Mathematics is grateful to all of you who played a role in the success of the "It Begins at Auburn" campaign. Although the campaign will officially continue until March 31, 2008, a record \$528 million dollars has been raised thus far. COSAM's original goal of \$16 million has been surpassed, and a "Vision Goal" of an additional \$4 million has been set. This additional funding will enable us to focus on establishing professorships, as well as the planning and construction of a new mathematics learning center. Every contribution, whether an outright gift of cash or stock, a life insurance policy, a bequest, or the transfer of a retirement account, ensures the continued success of the College of Sciences and Mathematics for current and future generations.

Questions concerning the college's development program should be directed to Tammy Beck Hartwell at 334.844.1449 or becktam@auburn.edu or Sherri Rowton at 334.844.1235 or rowtosj@auburn.edu.



**She's a senior majoring in biomedical sciences with a minor in Spanish. She's a member of Alpha Gamma Delta sorority, the secretary of the War Eagle Girls, and the president of the COSAM Student Government Association (COSAM SGA). This is ...**



**A Day in**



**the Life of**



**Sarah Campbell**

my second year. I enjoy it and I love Auburn," Sarah, a Florida native, said. "One of the things I liked when I visited the campus is that it has a small-town feel at a state school. Plus, it is a reputable science and math college."

Sarah dropped off her War Eagle Girl paperwork at Samford Hall (6), then went back to her house to study for an hour before going to the gym (7)

"When I was a freshman, I decided I wanted to maintain my fitness. Exercise helps me vent, relax, and it is a stress reliever," Sarah said.

After spending an hour at the gym, Sarah went home again, showered, and prepared for the COSAM SGA meeting. The meeting, held at Bizilia Café in downtown Auburn, was led by Sarah (8). Topics included COSAM tailgating events, service projects, and recruiting new candidates to the organization.

When the meeting was over at 6:30 p.m., Sarah went home and studied for her Vertebrate Development class (9). Then, at 8 p.m., she headed out the door one more time and went to Campus Crusade.

Despite the fact that Sarah maintains an active social life and has a résumé full of leadership roles, volunteer work, awards and achievements, she has managed to maintain a 3.97 GPA.

What is the secret to her success?

**"The secret to my college success has been to be blessed with an amazing family and supportive friends and professors who have encouraged me to have a hard work ethic and a sense of balance inside and outside of the classroom," Sarah said. "Also by being involved in various Auburn organizations and activities, I have learned more about myself and other students around me."**

No doubt Sarah's excellent work ethic and balanced lifestyle will continue to reward her in both medical school and in life. We'll be keeping an eye on this soon-to-be COSAM graduate!

On Thursday August 30, 2007, Sarah Campbell began her day at 9 a.m. with Dr. Ellis's research class (1).

"We are mutating plasma DNA to learn about cysteine dioxygenase," Sarah explained.

For three hours, Sarah and three other students worked together, alternating responsibilities. They also laughed, had fun, and discussed their plans for the weekend.

"We are a family," said Sarah's classmate Scott Littlepage.

Sarah had to leave the research group a little early to make it to her 11 a.m., Conversational Spanish class with Dr. McVay (2). As she crossed the threshold of the classroom, Sarah left the English language behind, and for the next hour she spoke nothing but Spanish.

"I'm still getting used to the class," Sarah said, "but it's really fun. I've enjoyed it."

As soon as Sarah got out of class, she pulled out her Blackberry and checked her voicemail, e-mail and text messages (3).

"Tuesdays and Thursdays are my easy days," Sarah said as she scrolled through her new messages. "I only have two classes on those days."

While many students might spend the rest of the day studying, lounging or hanging out with friends, Sarah used

her "easy day" to pack her schedule with activities.

First she renewed her parking pass (4), then she went home for lunch.

Sarah shares an apartment with three roommates — Lauren Beno, Chaney Shafferman and Martha Manley. As Sarah made a turkey sandwich, she and her roommates talked about their classes, an upcoming concert, the benefits of eating organic food and low-fat/low-sugar snacks, and the first football game of the season (5).

"I power-walked from here to the stadium today and it took me 20 minutes," Chaney said. "So, I figure it will probably take us 25 minutes to walk from here to the stadium on game day."

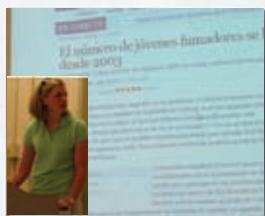
The song "Margaritaville" suddenly flooded the room and interrupted the roommates' discussion of the weekend. The sound was coming from Sarah's Blackberry — it was her ring tone. As she hurried to answer the telephone call, Chaney noted that, "She talks on the phone more than anyone else I know. She is in high demand."

After lunch, Sarah went to her room and worked on some administrative work for the War Eagle Girls.

"I handle all the assignments and requests for functions, and I take notes at meetings. This is



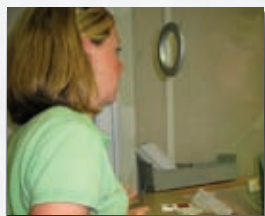
**1. Mutating plasma DNA in Dr. Ellis's class**



**2. Giving a presentation in Dr. McVay's class**



**3. Checking messages after class**



**4. Renewing parking pass**



**5. Talking to roommates Chaney and Martha**



**6. Dropping off War Eagle Girl paperwork**



**7. Working out at the gym**



**8. Leading the COSAM SGA meeting**



**9. Going home to study**



# COSAM DONOR LIST

The College of Sciences and Mathematics would like to recognize those who have supported the COSAM campaign with a gift or pledge of \$25,000 or more:

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Gifts made as of October 5, 2007

## answers to the Dean's Quiz on page 3

Court of Criminal Appeals Justice, **Chemistry**  
Quarterback-turned-dentist, **Pre-dentistry**  
Yacht designer, **Applied Physics**  
Church rector, **Mathematics**  
City manager, **Applied Physics**  
Attorney, **Biomedical Sciences**

University chancellor, **Mathematics**  
Mine foreman, **Mathematics**  
Rancher, **Mathematics**  
Accounting leader for *Friday Night Lights*, **Mathematics**  
Living-history museum participant, **Mathematics**  
Special agent forensic scientist, **Biochemistry**

# Remembering Dr. Eugene Clothiaux



Dr. Eugene John Clothiaux, Professor of Physics at Auburn University, affectionately known as “Dr. C.,” died Thursday, May 10 at the age of 76. He finished teaching the classes he loved on Friday, turned in his final grades on Sunday, went for scheduled surgery to keep him going full steam on Monday, and quietly passed in the company of his family on Thursday. He was born in Kaplan, LA, the youngest of five children. He received his B.S. in physics from the University of Louisiana at Lafayette, attended Tulane University, received his M.S. in mathematics from the University of Pittsburgh, and earned his Ph.D. in physics at New Mexico State University. Dr. C’s passions were teaching and research, and neither his family, nor colleagues and students were spared his enthusiasm. This enthusiasm appears to have been contagious, as many letters from former students were found in his office.

One student wrote, “I often thought about you after I left...and wanted to meet you someday to thank you for your mentoring, encouragement and advice you gave me back then. You really set the trajectory for my adult life, which has been, and still is, very rewarding to me and very productive.”

Dr. C touched many lives and many people around the country, both through his research and mentoring, but Auburn University provided the setting and community that supported and nurtured him for 37 years.

At home, he enjoyed the companionship of his wife, Clara, a revolving door of kids and grandkids, an adoring cat, and a healthy supply of crawfish étouffée. The constancy of his fig tree, transplanted from his Louisiana home, kept him close to his roots. He is survived by Clara, his wife of 52 years, three sons, Pierre, Eugene “Butch”, and John; three daughters, Anne, Monica and Jeanne-Annie; nine grandchildren, Dominique, Michael, Claire, Philip, Caroline, Daniel, Josh, Sophie, and Anabelle; sister, Marguerite, and brother, Harry. He was preceded in death by two brothers.

—Story courtesy of the *Opelika-Auburn News* with additions by COSAM.

—Photos courtesy of Clara Clothiaux.







Photo by Jeff Etheridge with Auburn University Photo Services

Dean Jim Foy gathers with members of the Roger Allen Family. Roger Allen Jr., “Bucky” (Mathematics, ’63), foreground with wife Kitty (Education, ’63), is the son of the late Roger Allen, Dean of Arts and Sciences from 1944 to 1967 and a contemporary of Foy. Roger and Kitty’s three sons and daughters-in-law, all Auburn graduates, are shown with their children, the next generation of Allen Tigers.



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