UT Arlington

THE UNIVERSITY OF TEXAS AT ARLINGTON MAGAZINE | SUMMER 2011

SOLDIER SUPPORT
Exploration targeting military veterans who have lost limbs or who suffer from post-traumatic stress thrives in the new Engineering Research Building. p. 24

EDUCATION MEETS ENTERTAINMENT
Six Flags Over Texas and UT Arlington wouldn’t seem to have much in common, but a closer look reveals copious connections. p. 30

SAVINGS PLANS
Financial challenges have Texas cities clamoring for assistance. The Institute of Urban Studies is the go-to program for smart solutions. p. 34

Degrees of Distance
Accessible from anywhere in the world, UT Arlington’s nationally recognized online learning programs are setting enrollment records.
After delivering the keynote address at the annual Graduation Celebration in May, John Legend assumed his more familiar role of Grammy-winning recording artist. He performed three songs for the 3,800 people who packed the Levitt Pavilion in downtown Arlington. Watch a video at uta.edu/classof2011.
Message from the Vice President for Research

Why Innovation Matters
by Ron Ealeshawer

One of the biggest understanements in scientific history appeared in a 1953 paper by James Watson and Francis Crick. In presenting their research on the DNA double helix, they wrote, “This structure has novel features which are of considerable biological interest.” Their “considerable” finding was actually an incredible revelation that led to a better understanding of how organisms pass on their genetic makeup through genome sequencing, as well as other scientific milestones. More than half a century later, discoveries are still emerging from this seminal biological breakthrough.

Such innovation improves our quality of life and fuels economic development, and so we need more of it. As marketplaces for ideas, universities provide fertile ground for the creative process that produces new knowledge. The polio vaccine, rocket fuel, MRI technology, seat belts, and numerous other world-changing inventions stemmed from university research.

At UT Arlington, we relish our role as a beacon of innovation. We promote academic freedom and foster an environment that rewards curiosity and challenges conventional thought. We understand that the next major discoveries will come only when people are encouraged to dream big and think differently. Remember The Six Million Dollar Man TV show where a crippled test pilot is reborn with bionic limbs and implants? It's not far from reality today. A team of UT Arlington bioengineering researchers is developing technology that will enable soldiers who've lost arms or legs to feel and control their prosthetic limbs as if they're real.

Another University breakthrough could revolutionize the medical diagnostic field. The technology will allow you to walk into a doctor's office and, with a simple finger prick, get a reading in 10 minutes on what ails you or what might soon ails you. Optical sensors will accurately monitor biochemical reactions in real time with no need for chemical tags.

The company developing this process, Resonant Sensors Inc., receives assistance from the Center for Innovation, a partnership between UT Arlington and the College of Communications that furthers technology-led economic development. The Center moves ideas from concept to market across an eight-state region.

Founded using intellectual property licensed through UT Arlington, Resonant Sensors is a classic example of the innovation process. Researchers use fundamental knowledge to develop applied technology that leads to products for the marketplace. UT Arlington provides all the tools for scholars to complete this cycle of vertical integration.

Each year we engage 65-70 invention disclosures (the first step in protecting an invention with a patent). We typically file 20 patents a year and receive about eight. Once a patent is issued, the technology can be licensed for commercialization. We recently announced a licensing agreement with a Fort Worth company for a portable converter that turns natural gas into jet fuel and diesel. Several other agreements are in the works.

As we progress through the cycle of how to creatively use fundamental knowledge, we also must focus on teaching and training the next generation of thinkers and innovators. If we teach only from a textbook, the book will never change. What we teach must evolve as we create, and we must keep feeding the cycle of knowledge to produce a better-educated society.

Several decades ago, the Dick Tracy comic strip introduced a two-way wrist radio that Tracy and other police officers wore like a watch. This make-believe communications device became a widely recognized icon and is often quoted as a precursor to today's smartphones. For this invention to morph from fantasy to reality, somebody had to make the technology small, lightweight, and power efficient. Somebody had to think creatively and without limits.

It's that type of thinking that will lead to the next generation of inventions, to life-changing technologies that seem like science fiction today. We're learning more and more about nerve and tissue regeneration and can now regrow tissue in a dish and implant it in the body. Why not regrow a heart, a lung, or an eye? It's possible, but it takes dedication, creativity, discovery, and learning—all tied together.

At UT Arlington, we believe it’s our obligation to create new knowledge through research and shape minds to develop tomorrow’s innovations. We do it to change lives, enhance lives, and save lives now and for generations to come.

From the research and technology faculty, Dr. Ron Ealeshawer oversees the University’s burgeoning research enterprise.

As UT Arlington’s vice president for research and technology relations, Dr. Ron Ealeshawer oversees the University’s burgeoning research enterprise.
Facebook

ALINA CHESEPANOA
Completing a ropes challenge approximately 30 feet in the air was no sweat for international student Alina Chesepanoa. “It wasn’t difficult,” the Russian native says. “I go to the Maverick Activities Center’s group classes every week and am prepared to sweat for international students.”

Email

STUDENT NEWSPAPER A TRIBUTE TO FREE SPEECH
I write to commend UT Arlington Magazine for focusing on The Shorthorn—a UTA jewel that upholds a long tradition of running the University as a vital source of news and information. Mr. Woodward’s article (spring 2011) highlighted some of the paper’s high points—and low ones. But The Shorthorn’s real triumph is what those who toiled on it took from the experience and what they, in turn, have given to society because of what they learned. That the paper continues to be one of the best in the nation is a tribute to the research, commitment to education, free speech, and independent thought.

YouTube

OUTSHINING THE COMPETITION
Learn how bioengineering researcher Jian Yang uses a material that’s biomimetic, biodegradable, and safe to implant in the body to boost cancer treatment and tissue engineering. Watch the “Biomedical Sciences Revolution” video on youtube.com/ut Arlington.

Flickr

NEIGHBORHOOD FOCUS
Under the direction of art professor Kendra North, 18 UT Arlington students documented the architecture and people along Bishop Avenue and Davis Street in Oak Cliff. Their photography exhibit, diary/bishofoakcliff.doc, was featured at the historic Kessler Theater and in a book published by the Oak Cliff Chamber of Commerce, which co-sponsored the exhibit. View a selection of images at flickr.com/groups/utamagazine.

C A M P U S

Twitter

#chrilong Speaking at UT of Texas at Arlington graduation tonight, I wonder if I get to wear another professor/bishop hat. @mayy_beee I’m officially accepted to UT Arlington!!! :). @ajserna Registering for classes in the fall at The University of Texas at Arlington. A lot of classes were dropped here. @bigdaddychilds About to see Bill Nye the Science Guy @ UTA tonight. Someone pick me up or I’ll be left alone. Bill Nye will be awesome tonight. @TINKIE #4 MCM. @mayy_beee I hear @johnlegend is there tonight. I wonder if I get to wear another professor/bishop hat. @RegWright Will be tenor at UT Arlington in the fall! @keeptxbeautiful A great Earth Day event at UT Arlington. Great online Q&A about the realities of going head-to-head against the other Texas state universities going. @chrilong Speaking at UT of Texas at Arlington graduation tonight, I wonder if I get to wear another professor/bishop hat. @chrilong Speaking at UT of Texas at Arlington graduation tonight, I wonder if I get to wear another professor/bishop hat. @RegWright Will be tenor at UT Arlington in the fall!
The first of three major components of the College Park District opened in April, and the other two are rising rapidly in the 20-acre urban renewal development on the UT Arlington campus.

The Green at College Park provides a southern gateway into the emerging college town environment and has quickly become a popular gathering spot. The 2.5 acres feature a large lawn, a curved stone wall with seating, native plants, recycled materials, and a dry creek bed for storm water drainage. Designed by Schneckel, Rollins and Associates, the park is among 150 sites worldwide that will test the first-ever international rating system for green landscape design, construction, and maintenance.

Taking shape just north of The Green is College Park Center, the College Park residential and retail development comprises residence halls and apartments wrapped around two parking structures, one of which will open this summer. The remainder of the project, which features housing for about 600 students, a welcome center, street-level retail, office suites, and the second parking structure, is scheduled to be finished in summer 2012.

The $80 million development includes a commitment of up to $18 million from Arlington to help fund the cost of the parking structures and 1.5 acres of land donated by First Baptist Church Arlington. Jacobs Engineering Group designed the project to meet LEED Silver standards.

The College Park District represents the shared goal of UT Arlington and the city to stimulate and complement downtown development.

"This is a model for town-gown partnerships," UT Arlington President James D. Spaniolo says. "Anyone who drives south on Center Street through the heart of our city can see that something big is happening. Together, we are shaping Arlington into a true college town."

When did you prepare for the 3,716-mile swim? It was five hours per day of training. Once I could swim five hours, I knew I could add another three. It’s just a matter of keeping your pace, being consistent. After that, it’s mental preparation. You can never imagine the difficulties of the stress that comes from being isolated, swimming in a hostile environment, with only basic necessities on the support boat and little sleep.

What did you think about while swimming? You want to do anything but focus—you disassociate. I made my own movies in my head. At the time I had never made my own movies in my head. At the time I had never been to New York, so I tried to imagine what would be like in great detail: what the streets would look like, what the people, what they would be wearing, what they were doing, the smell, where I was going. The people in your mind nowhere else so you fall into almost a meditative state.

What's your advice for anyone trying with the idea of swimming across an ocean? Don’t look at what you are trying to accomplish because that can be overwhelming. Break it up into smaller parts, come up with a daily plan, focus only on that part of the plan each day. Before long, you’ll be on the other side of it—task completed.

What were the high points? Waking up to the sound of dolphins clicking and whaling. I dashed to get into the water with them, but they swam away before I got there. Another time I was in the water and a pod of dolphins was following me. I moved closer to them, they moved to maintain the same distance. They paced me for quite a while.

How did you stay motivated? Many days I was exhausted, wondering, “What exactly am I doing? Why am I doing it?” But every day that I got back on the boat I could read emails from cancer patients who gave me insight into their treatment and said I gave them motivation to keep going. And I thought, “I can stop anytime, but they can’t.” That was a big thing that kept me going.

What’s next? Swimming the Pacific in spring 2012. It’s the same training, but the logistics are different. It’s going to be a longer swim, and I’ll have a more stable boat and better communication. I’m developing a website, thelongestswim.com, and I’ll have a more stable boat and better communication. I’m developing a website, thelongestswim.com, and you’ll be able to follow the swim with videos and pictures.

What was the lowest point? Thinking, “I can’t do this anymore.” One day I was exhausted, thinking, “Why am I doing this?” I thought, “I can stop anytime, but they can’t.” That was a big thing that kept me going.

What did you think you could do something as epic as swim the Atlantic Ocean? I saw the progression of a French rower who was rowing across the Atlantic. I realized that I was swimming faster than he was rowing and thought it was something I could do. I was already swimming so much, and I felt like it was a natural progression.

What motivated you to take on such a task? My father taught me to swim in the ocean when I was a boy. While I was doing the research for the swim, he was diagnosed with colon cancer and died about a year and a half later. This added purpose to my swim—to raise awareness for cancer.

How did you raise $6 million? It was hours per day of training. Once I could swim five hours, I knew I could add another three. It’s just a matter of keeping your pace, being consistent. After that, it’s mental preparation. You can never imagine the difficulties of the stress that comes from being isolated, swimming in a hostile environment, with only basic necessities on the support boat and little sleep.

What did you think about while swimming? You want to do anything but focus—you disassociate. I made my own movies in my head. At the time I had never made my own movies in my head. At the time I had never been to New York, so I tried to imagine what would be like in great detail: what the streets would look like, what the people, what they would be wearing, what they were doing, the smell, where I was going. The people in your mind nowhere else so you fall into almost a meditative state.

What's your advice for anyone trying with the idea of swimming across an ocean? Don’t look at what you are trying to accomplish because that can be overwhelming. Break it up into smaller parts, come up with a daily plan, focus only on that part of the plan each day. Before long, you’ll be on the other side of it—task completed.

When were you worried about sharks? We had an electrode on our boat that creates a magnetic field to keep sharks away. At one point I was outside the field and the shark circled me. He followed us for about five days.

What were the red flags? Waking up to the sound of dolphins clicking and whaling. I dashed to get into the water with them, but they swam away before I got there. Another time I was in the water and a pod of dolphins was following me. I moved closer to them, they moved to maintain the same distance. They paced me for quite a while.

How did you stay motivated? Many days I was exhausted, wondering, “What exactly am I doing? Why am I doing it?” But every day that I got back on the boat I could read emails from cancer patients who gave me insight into their treatments and said I gave them motivation to keep going. And I thought, “I can stop anytime, but they can’t.” That was a big thing that kept me going.

What’s next? Swimming the Pacific in spring 2012. It’s the same training, but the logistics are different. It’s going to be a longer swim, and I’ll have a more stable boat and better communication. I’m developing a website, thelongestswim.com, and you’ll be able to follow the swim with videos and pictures.

What was the lowest point? Thinking, “I can’t do this anymore.” One day I was exhausted, thinking, “Why am I doing this?” I thought, “I can stop anytime, but they can’t.” That was a big thing that kept me going.

What did you think you could do something as epic as swim the Atlantic Ocean? I saw the progression of a French rower who was rowing across the Atlantic. I realized that I was swimming faster than he was rowing and thought it was something I could do. I was already swimming so much, and I felt like it was a natural progression.

What motivated you to take on such a task? My father taught me to swim in the ocean when I was a boy. While I was doing the research for the swim, he was diagnosed with colon cancer and died about a year and a half later. This added purpose to my swim—to raise awareness for cancer.

How did you prepare for the 3,716-mile swim? It was five hours per day of training. Once I could swim five hours, I knew I could add another three. It’s just a matter of keeping your pace, being consistent. After that, it’s mental preparation. You can never imagine the difficulties of the stress that comes from being isolated, swimming in a hostile environment, with only basic necessities on the support boat and little sleep.
Awards

FRANK LU
Mechanical and aerospace engineering Professor Frank Lu has been selected a fellow of the Royal Aeronautical Society, recognizing his innovative research and international eminence within the aerospace community. Dr. Lu is the director of the Aerodynamics Research Center.

JUDY LEFLORE
A College of Nursing professor, whose specialty is 3-D gaming technology, teach in hospital pediatric care has won a competition sponsored by the Society for Simulation in Healthcare. Judy Leffler's study explored whether a specially designed 3-D video game worked as well as a lecture in teaching how to respond in a clinical setting.

PURNENDU DASGUPTA
Chemistry and biochemistry Professor Purnendu Dasgupta has received the 2011 Award for Chromatography from the American Chemical Society, the world's largest scientific society for pioneering advances in chromatography. Winners are chosen based on nominations from peers and expert reviewers.

JOY DON BAKER
The Association of Operating Room Nurses has honored Joy Don Baker for Outstanding Achievement in Perioperative Academic Nursing Education. Dr. Baker, a clinical associate professor in the College of Nursing, was recognized for her use of technology in nursing education to improve patient safety in surgical settings.

UNCOVERING OF RULER’S TOMB DATES TO 350 B.C.
A UT Arlington archaeologist is gaining international recognition for his role in research that revealed the oldest known tomb of an ancient Maya ruler. Michael Callaghan, an adjunct assistant professor in the Department of Sociology and Anthropology, worked on a team led by University of Kansas research associate John Tomasi, who found the burial site in 2008 at K’in, Guatemala. Archaeologists unearthed the body of a man believed to be in his 20s and in seemingly good health at the time of his death. They also found an incense burner with the image of a jester god headrest, along with vessels, jugs, and plates. “One pot had a little crown with a pronged headdress on it, and that’s known to be only associated with kingship,” says Dr. Callaghan, who analyzed the ceramics. “The work was supported by radiocarbon analysis, which gave us a date of 350 B.C.” Until now, the oldest known royal burial of a Maya ruler was from San Bartolo, Guatemala. It was discovered in 2005 and dated to 100 B.C.E. Both burial sites were found beneath houses. Callaghan presented the team’s research for the first time publicly at the 76th annual meeting of the Society for American Archaeology in April. Since then, news of the findings has appeared in CNN Today, the London Daily Mail, and Tehrin’s Cultural Heritage News Agency, among other media outlets. Callaghan says the Maya are fascinating. “Growing up, we learn about Mesopotamia and Egypt, but the Maya are so different in the way they looked at ideology, their religious focus, and art.” He plans to research more about the Maya civilization, with a focus on how social hierarchies started and why people created social divisions.

NOW OPEN FOR DISCOVERY
A new era of innovation began in March when the Engineering Research Building officially opened its doors. Joining President James D. Sch Fenno at the ceremonial ribbon cutting were President Donald Bobbitt, College of Science Pamela Jansma, state Sen. Chris Harris, U.S. Rep. Joaquin Castro, and UT System Rector Brenda Pejovich, and College of Engineering Dean Bill Carroll. Shared by College of Engineering and College of Science researchers, the landmark center is UT Arlington’s largest academic facility. The 234,000-square-foot building houses the Department of Bioengineering and the Department of Computer Science and Engineering, and it integrates research teams from biology, biochemistry, genomics, math, neuroscience, and physics to foster collaborative research. Watch a video at uta.eduengineering/sub.

Playing Nurse
Grant-funded video game could transform health care training using lifelike simulations
Increasing patient safety by improving physician-nurse communication is the goal of a nearly $1 million grant awarded to UT Arlington’s College of Nursing, the Baylor Health Care System, and UT Dallas.

The U.S. Agency for Healthcare Research and Quality award will be used to develop video game-like simulations that provide a safe, virtual environment where doctors and nurses can learn to communicate through role-playing. Health care providers will experience real-world situations and react in the virtual setting, similar to advanced computer games.

“Technologies like the high-fidelity manikins at UT Arlington’s Smart Hospital have made it possible for students to acquire and test their skills in a realistic environment where it’s safe to make a mistake and learn from it,” says Beth Mancini, associate dean of the College of Nursing and principal investigator for the study. “The development of serious gaming systems takes that capability to a new level and has the potential to transform health care training.”

Communication problems in health care can lead to serious, even fatal, mistakes. The Joint Commission, the national organization that accredits and certifies health care organizations, has identified communication among caregivers as a key National Patient Safety Goal. Dr. Mancini will provide health care expertise along with Yan Xiao, director of patient safety research at Baylor Health Care System. Marjorie Zielke, a UT Dallas assistant professor of arts and technology, will construct the prototype game. Initially, it will focus on surgeons and nurses caring for postoperative patients. The researchers plan to recruit 120 nurses and 25 physicians on the Baylor medical staff to take part.

Mancini, Xiao and Zielke hope to collaborate on future projects that explore how interactive, lifelike virtual environments can improve health care delivery.

Exercise and Weight Management Crash Course
It’s a course that improves the body you’ve got through the mind. Kinesiologist Assistant Professor Chris Hodgson from offering Exercise and Weight Management helps students develop weight management strategies in a healthy, accessible platform. Students are outfitted with an accelerometer and instructed to use online dietary intake logs that track their daily and overall caloric intakes. Simultaneously, they are exposed to 15 lessons that require them to make activity or nutrition changes and evaluate the impact on their weight. The students sample a variety of ways to accomplish caloric balance and adopt healthy behaviors. Ashley Holderness lost 25 pounds when she took the course but says the lessons go well beyond diet and weight loss. “This day, I continue to apply the knowledge I learned in this class to stay healthy and fit,” she says. “It teaches you how your brain and body work and how much energy it needs to function. It gives you the ability to maintain a healthy lifestyle for the rest of your life.”

SUMMER 2011
BOOK ARGUES GREEN ENERGY FALLS SHORT

A cleaner environment. Plentiful jobs. Improved quality of life. Green energy promises all of this, but can it deliver? Roger Minnors says there’s a lack of evidence that it can. Dr. Minnors, the Distinguished Professor of Economics in the College of Business, explains his theory in The False Promise of Green Energy, co-written with Andrew Morrison of the University of Alabama, economist William Bogart, president of Maryville College; and Andrew Dorschak, head of research at the Case Western Reserve University School of Law. The book evaluates claims that emphasizing green energy and green jobs can improve the economy and the environment, although they would require spending billions of dollars. It also contrasts energy production realities and energy use in the United States and the rest of the world with proposals from green jobs advocates. “We looked at the issue with the critical eye of economic analysis,” says Minnors, chair of the Economics Department. “There are too many unanswered questions, too many aspects of green energy that have not been checked.” The False Promise of Green Energy explains that nearly half of the energy consumed in the United States goes indirectly to produce food, medicines, and consumer goods. If energy costs rise because of forced use of more expensive renewable energy, the book asserts, these other costs rise as well. The book also describes what it calls the high costs of green energy programs advocated by special interest groups. “Our book shows the recklessness of trying to transform society with borrowed money instead of allowing free-market economics to will out,” Minnors says. “These competitive forces allow for greater environmental quality and energy efficiencies, not government programs and grants.”

FLEA CONTROL A tiny, yet surprisingly complex source is helping Ellen Pritham break genetic ground. The biology assistant professor leads part of an international team that mapped the DNA code of the water flea, Daphnia pulex, making it the first crustacean genome to be sequenced. The researchers found that the Daphnia pulic gym genome held more genes—about 21,000—than any animal ever sequenced; by comparison, humans have about 20,000 genes. The team believes that many of the new genes may enable the organism to respond to its changing environment. The Daphnia will thus serve as a model for a new field, environmental genomics, in which scientists aim to better understand how genes and the environment interact. The work of Dr. Pritham’s team has been featured in Science and Nature magazines.

Mutation Finder

Researchers create more mobile, efficient system to detect genes associated with cancers

A gene linked to certain cancers just got a little easier to find, thanks to researchers in the College of Engineering and College of Science. Electrical engineering Assistant Professor Samir Iqbal and biology Assistant Professor Shawn Christensen devised a system to electronically detect a gene mutation implicated in 90 percent of pancreatic cancers and frequently linked to lung cancer. Their method involves running tiny amounts of blood over nanomaterials.

“There are many versions, or alleles, of a given gene within a population,” Dr. Christensen explains. “People can have slightly different variations of a gene due to mutation and genetic recombination. Some mutations can predispose an individual to a given disease, while others may lead to protection from the same or different disease.”

The research could help physicians prescribe therapy and healthy behaviors that may delay or eliminate the risk for patients predisposed to these diseases. “Our work could be used to detect any genetic marker,” Dr. Iqbal says. “If a disease has a known genetic component, we can tell you whether you have the gene that might lead to the disease.”

Other processes accomplish similar results, but they require the detection of fluorescent dyes or radioactivity, more labor, or bulky, expensive machinery. In contrast, Iqbal and Christensen’s screening process uses only a quarter of a milliliter of blood. It also improves detection speed, sensitivity, and portability.

“We can incorporate into a small handheld device the electrical detection process we have demonstrated,” Iqbal says. “The mobile technology can then be used outside the laboratory to ascertain if someone carries specific genes or not, just like a glucometer currently does.”
Searching for Signs

National Science Foundation grant helps develop a visual dictionary of sign language gestures

Computer science and engineering Assistant Professor Vasileios Athitsos is helping create a Google for sign language.

Dr. Athitsos received a five-year Early Career Development grant from the National Science Foundation to further develop a computer recognition system that will become a visual dictionary for American Sign Language (ASL).

The project aims to automatically annotate, recognize, and index large vocabularies of gestures. To find the meaning of a particular sign, the user would form the sign in front of a camera atop a computer. The recognition system would compare the gesture with thousands of images stored in the computer’s database, display a selection of similar images, and have the user select the most appropriate meaning.

Athitsos hopes one day teams with producers of ASL dictionaries to make a recognition system downloadable from the Internet. Future iterations of the online sign language dictionary could reflect regional “dialects,” he says, because signs vary throughout the country.

“Our technology could also be applied to other sign languages around the world, as different countries use different signs,” Athitsos said.

Athitsos became interested in decoding American Sign Language while taking a college course in the subject.

“I was a horrible student. I had to page through a book and look at the signs until I recognized something,” he says. “My professor at the time told me no one had tried to make a computer-based sign lookup system.”

College of Engineering Dean Bill Carroll believes Athitsos’ work will have an immediate and positive impact.

“It’s the kind of practical, real-world research that we land here at UT Arlington,” Dr. Carroll says.

COMPUTER GAMES AID CEREBRAL PALSY CARE

UT Arlington computer scientists are creating games to help make life more fun for children with cerebral palsy.

Professor Fillia Makedon, chair of the Computer Science and Engineering Department, and her research team received two National Science Foundation grants to develop an adaptive, “cyber-physical” system called CPLAY to improve physical and mental assessments of children with the condition. Cerebral palsy can affect movement, muscle tone, or posture, as well as cognitive and other functions. It usually is caused by injury or abnormal development in the embryonic brain before, during, or right after birth. The Centers for Disease Control and Prevention estimates that 10,000 babies are born in the United States each year with the disorder.

Dr. Makedon’s team is creating different types of games for children to play based on their disorder. Each game can be adapted for speech, color, sound, or other features to match a child’s capabilities or preferences. Families of children with cerebral palsy would be able to download the games from the Internet and play them with any mobile device. After playing, the collected data would be summarized and shared remotely with the child’s therapist.

When discussing ways to fight deadly forms of cancer, tweezers rarely enter the conversation. But two UT Arlington researchers are changing that. By manipulating cells with focused laser beams, or optical tweezers, they’re enabling drug-carrying nanoparticles to deliver medicine to cancer cells.

Bioengineering Associate Professor Kytai Nguyen and physics Assistant Professor Samarendra Mohanty are part of the interdisciplinary effort in the Biophysics and Physiology Lab in the new Engineering Research Building. The work could help investigators design nanoparticles that have more therapeutic benefits while reducing the severe side effects often associated with chemotherapy.

“A focused laser holds the cell. We then use a force against the cell to measure the single cell’s elasticity, which measures how much that cell can stretch,” Dr. Mohanty explains. “A cancer cell is normally more brittle, so these can be identified. A nanoparticle carrying a drug is then introduced with the optical tweezers.” How these nanoparticles interact with the cell yields valuable information about the cell. “We can use that data with an antibody or targeting motif that is bound to dosed cells and deliver drugs to rely those cells to treat illnesses,” Dr. Nguyen says. Mohanty also works in optogenetics, an emerging field using low-power light to stimulate neuronal cells. A micro LED (light-emitting diode) stimulates the specific genetically targeted neurons. Mohanty says using optogenetics to treat retinitis pigmentosa, an eye disease that causes vision loss due to degeneration of photoreceptors in the retina, has been successful.
MBA PROGRAM CONTINUES TO EXPAND ITS INFLUENCE

UT Arlington’s nationally recognized MBA program is heading north. Classes begin Aug. 25 in Frisco, north of Dallas, for a fully accredited two-year Master of Business Administration degree. The evening MBA Professional Cohort is designed for working professionals and will welcome students with and without prior business education. It will cover key elements of the traditional MBA, with a focus on business development and entrepreneurship. Additional courses will address global business, leadership and management, and the implementation of new technologies. The program is accredited by the Association to Advance Collegiate Schools of Business International, the highest standard for business schools worldwide. All classes will be at the North Texas Enterprise Center for Technology. “The community of Frisco is thrilled to host a world-class MBA program that caters to professional development here or in Frisco and its surrounding communities,” Frisco Mayor Maher Maso says. The University has offered the evening program at its Fort Worth Center since 2000. Traditional semesters are divided into five- or eight-week sessions with Monday and Thursday evening courses delivered in a sequenced format, allowing the class to emphasize one subject at a time. “As an alumna, I know firsthand the exceptional quality of UT Arlington’s business faculty and its degree programs,” Maso says. “The University’s investment will help meet an important educational need in our community.” College of Business Dean Dan Himarios says Frisco is an excellent market for advanced business education. “The MBA Professional Cohort at Frisco can provide the means to an important competitive edge for future business leaders in the area,” he says. The College of Business also offers an MBA program in China.

COMMAND PERFORMANCE

Harriet Alcorn Road and the UT Arlington Symphony Orchestra performed at the Music Department’s Scholarship Gala Concert in April at the Margot and Bill Winspear Opera House in Dallas. UT Arlington was the first university to host a concert at the architecturally striking facility, which opened in 2009 as part of the AT&T Performing Arts Center in the Dallas Arts District. The concert also included performances by the Wind Symphony, Jazz Orchestra, and A Cappella Choir. “It is a rare opportunity to be able to perform in a world-class venue, hear great music, and support endowments for student scholarships,” Music Department Chair John Burton says. “This was truly a win-win-win event.”

Sedrick Huckaby
The tapestry of art is woven with history, a fact that Sedrick Huckaby celebrates in his own art, which is inspired by his family, faith, and heritage. Huckaby’s canvases and works on paper—African-American quilting traditions receive part of a two-person show at The Gallery at UT Arlington. “Sometimes I see the quilts as the African-American woman’s jass—a circle of women conversing, improvising, and making music. Beauty is everywhere,” says the visiting assistant professor of art. “This is a great joy in doing these works because I am one of the few people in the world who could say he is doing a jam session with Granny,” Huckaby, who has won the Joan Mitchell Foundation Award, the Lewis Comfort Tiffany Award, and a Gunksman Fellowships Award, achieves with his art what most every artist seeks: to connect individual experience to a greater collective truth. “I am always trying to relate personal concerns with larger, universal ones. So many of these pieces have personal, social, and spiritual implications.”

Sketch Show
Art historian hopes to bring Renaissance drawings exhibition to North Texas museum

North Texas may soon be visited by an impressive group of Old Masters. Art historian Professor Mary Vaccaro recently received a grant from the Texas Fund for Curatorial Research to conduct on-site research of drawings from 14th- to 16th-century Italian artists like Leonardo da Vinci, whose portrayal of Venus disarming Cupid, above, is in a museum in Rennes, France. Dr. Vaccaro begins her month-long fellowship in France in July. Her research will focus on collections housed with members of the French Regional and American Museum Exchange. She hopes the works she uncovers eventually will fill a museum exhibit. “There are no public collections of Old Master drawings in North Texas, only private collections,” she says. “My trip is about going to see if there are enough drawings to build a show.” Painters, sculptors, and architects such as Raphael, Michelangelo, and Leonardo all made preliminary drawings before beginning their projects. These pieces provide a rare glimpse into the creative processes of some of the Renaissance’s most famous artists. “You can have a much more intimate relationship with a drawing than a painting,” Vaccaro says. “Each artist has a kind of handwriting for his or her work. You can hold the drawing in your hands and get so close to the artist. You get a sense of direct contact with an artist who was working 500 years ago.”

Beth Wright, dean of the College of Liberal Arts, calls Vaccaro one of the world’s top scholars in Italian Renaissance art. “This fellowship demonstrates not only Dr. Vaccaro’s international standing,” Dr. Wright says, “but also the contribution she is making to educational excellence in our campus.”

Numbers

5,227,681
In the past 10 years, the total square footage in all campus buildings has increased more than 30 percent to 5,227,681. The number of buildings has increased from 101 to 128 during the same period.

150
The Green at College Park is one of 150 such international programs that will test the first-ever international system for green landscape design, construction, and maintenance.

623,451
Students, faculty, staff, and alumni continue to flock to the Maverick Activities Center in record numbers. From March 2010 to March 2011, the MAC recorded 623,451 visits, 22,171 people.

1,700,000
Recently completed energy-performance measures guarantee UT Arlington $17.7 million in annual savings over nine years. For electricity, the University partners with eight other institutions for a group rate. Natural gas is bought directly from a wholesale distributor, resulting in a much lower cost.

116
The 2,689 international students enrolled in fall 2010 represented 116 countries. More students hailed from India (970) than any other nation. According to the 2010 Open Doors report from the Institute of International Education, UT Arlington ranks 34th nationally in number of international students.

15
Numbers

150
The Green at College Park is one of 150 such international programs that will test the first-ever international system for green landscape design, construction, and maintenance.

623,451
Students, faculty, staff, and alumni continue to flock to the Maverick Activities Center in record numbers. From March 2010 to March 2011, the MAC recorded 623,451 visits, 22,171 people.

1,700,000
Recently completed energy-performance measures guarantee UT Arlington $17.7 million in annual savings over nine years. For electricity, the University partners with eight other institutions for a group rate. Natural gas is bought directly from a wholesale distributor, resulting in a much lower cost.

116
The 2,689 international students enrolled in fall 2010 represented 116 countries. More students hailed from India (970) than any other nation. According to the 2010 Open Doors report from the Institute of International Education, UT Arlington ranks 34th nationally in number of international students.

Gallery African-American Quilting Traditions

SEDRICK HUCKABY

From top: A Love Supreme-Fall, A Love Supreme-Spring, A Life of Women-Conversation, A Woman’s Jazz—A Circle of Three,...
GRANT ENCOURAGES PURSUIT OF ENVIRONMENTAL DEGREES

Building scientists at UT Arlington will soon have a new, powerful incentive to continue their studies. The University recently received a five-year National Science Foundation grant to encourage undergraduate students to pursue a postgraduate degree in environmental science or geology. The grant will provide 23 scholarships to academically talented but economically disadvantaged undergraduates seeking a master’s degree in either field. The scholarships will help cover tuition and fees for the senior year of study and for two years of graduate school. “Our goal is to encourage more students to pursue graduate study and a career in the geoscientific/environmental sciences,” says Andrew Hunt, assistant professor in earth and environmental sciences and principal investigator for the grant. “We expect some of these students will then go on to earn a Ph.D. in our earth and environmental sciences doctoral program.” Graduate School Dean Phil Cohen notes that the scholarships will be both need- and merit-based. “Many of these students will be the first member of their families to attend college,” says Dr. Cohen, a co-principal investigator. “We’ll use the grant to prepare them in their undergraduate years and provide them with the resources to succeed in graduate school.” UT Arlington expects to draw participants from its undergraduate ranks as well as from UT Brownsville and UT Pan American. The College of Sciences’ Earth and Environmental Sciences Department and the Office of Graduate Studies jointly proposed the project.

Budding scientists at UT Arlington will soon have a new, powerful incentive to continue their studies. The University recently received a five-year National Science Foundation grant to encourage undergraduate students to pursue a postgraduate degree in environmental science or geology. The grant will provide 23 scholarships to academically talented but economically disadvantaged undergraduates seeking a master’s degree in either field. The scholarships will help cover tuition and fees for the senior year of study and for two years of graduate school.

“Our goal is to encourage more students to pursue graduate study and a career in the geoscientific/environmental sciences,” says Andrew Hunt, assistant professor in earth and environmental sciences and principal investigator for the grant. “We expect some of these students will then go on to earn a Ph.D. in our earth and environmental sciences doctoral program.” Graduate School Dean Phil Cohen notes that the scholarships will be both need- and merit-based. “Many of these students will be the first member of their families to attend college,” says Dr. Cohen, a co-principal investigator. “We’ll use the grant to prepare them in their undergraduate years and provide them with the resources to succeed in graduate school.”

UT Arlington expects to draw participants from its undergraduate ranks as well as from UT Brownsville and UT Pan American. The College of Sciences’ Earth and Environmental Sciences Department and the Office of Graduate Studies jointly proposed the project and will manage the grant together.

VEGETABLE TALE

New town-grown Community Garden encourages sustainable food options

When the first seeds sprouted in her plot in the Community Garden at UT Arlington, alumna Julie Sullivan, above, brought her granddaughter to help tend them.

“She’s only 3, but she loves to help me water plants,” the 1990 accounting graduate says.

The two are enjoying a bountiful harvest. Sullivan planted many things—squash, okra, lettuce, tomatoes, strawberries, cantaloupe. “It’s surprising how much you can plant in each plot,” she says.

Located in the northwest corner of the campus, the Community Garden opened in March and is a first-of-its-kind collaboration between UT Arlington and the City of Arlington. With nearly 80 plots, a tool shed, picnic areas, a rainwater harvesting system, and plans to donate 50 percent of the produce, the garden brings people with a green thumb together while benefiting the community.

“While the garden’s ultimate job is to produce healthy food, it also will surely instill a sense of ownership and philanthropy in those who care for it,” says Bill Gilmore, assistant director of the Arlington Parks and Recreation Department. “Its construction is another example of the city and UT Arlington’s commitment to building a vibrant downtown community in central Arlington.”

For the gardeners it represents a chance to connect with others while doing something wholesome.

“It’s a good way to get out in the sunshine and meet new people,” Sullivan says, “and it’s interesting to talk to the other gardeners and see their gardening styles.”

Apart from the sense of community, there’s also the pure pleasure of growing food from scratch. “It’s a great opportunity to grow some healthy fruits and vegetables—or at least try to,” she says. “There’s nothing like eating fresh vegetables from your own garden.”
Smooth Swing

Senior Wes Worster leads the Mavericks to their first conference golf championship since 2005. All year, coach Jay Rees implored his golfers to finish strong. And so they did at the Southland Conference Championship in April.

Four locals on the final hole propelled UT Arlington to its fourth SLC title and first since 2005. The team finished with a three-day, 2-under 862—10 strokes better than second-place Lamar—at Waterchase Golf Club in Fort Worth.

"Everybody contributed," says Rees, who won his second SLC title in 12 years as coach. "It’s not easy. The conference gets better every year. Five or six teams are really an accomplishment.”

The Mavericks held an early seven-shot lead before defending champion Southeastern Louisiana mounted a charge to pull ahead. With the tournament hanging in the balance, Rees and assistant coach Stuart Powell a charge to pull ahead. With the tournament hanging in the balance, Rees and assistant coach Stuart Powell

WOMEN WIN TENNIS CROWN

Led by senior Daiana Negreanu, below, the women’s tennis team dominated the Southland Conference in 2011, going undefeated during the regular season and winning the tournament title. The Mavericks beat Northwestern State in the championship match to capture their sixth SLC crown and advance to the NCAA Outdoor Championships. It’s been 20 years since Daiana Martin, a 6-foot-7 native of France who helped the men’s track team reach a No. 24 national ranking. “I’m just trying to do my best,” he says. So far, Martin’s best has been historically good. He captured Southland Conference men’s indoor track Athlete of the Year honors after a breakthrough rookie season in which he set the UT Arlington heptathlon record. Early in the outdoor season, he shattered the school’s decathlon mark with 2,465 points. He won the decathlon at the conference championships and was named Newcomer of the Year.

Led by senior Daiana Negreanu, below, the women’s tennis team dominated the Southland Conference in 2011, going undefeated during the regular season and winning the tournament title. The Mavericks beat Northwestern State in the championship match to capture their sixth SLC crown and advance to the NCAA Outdoor Championships. It’s been 20 years since Daiana Martin, a 6-foot-7 native of France who helped the men’s track team reach a No. 24 national ranking. “I’m just trying to do my best,” he says. So far, Martin’s best has been historically good. He captured Southland Conference men’s indoor track Athlete of the Year honors after a breakthrough rookie season in which he set the UT Arlington heptathlon record. Early in the outdoor season, he shattered the school’s decathlon mark with 2,465 points. He won the decathlon at the conference championships and was named Newcomer of the Year.

All year, coach Jay Rees implored his golfers to finish strong. And so they did at the Southland Conference Championship in April.

Four locals on the final hole propelled UT Arlington to its fourth SLC title and first since 2005. The team finished with a three-day, 2-under 862—10 strokes better than second-place Lamar—at Waterchase Golf Course in Fort Worth.

“Everybody contributed,” says Rees, who won his second SLC title in 12 years as coach. “It’s not easy. The conference gets better every year. Five or six teams are really an accomplishment.”

The Mavericks held an early seven-shot lead before defending champion Southeastern Louisiana mounted a charge to pull ahead. With the tournament hanging in the balance, Rees and assistant coach Stuart Powell urged the golfers to finish like champions.

“The plan came to fruition,” Rees says. “The greatest plan in the world doesn’t matter if you don’t execute. But they did execute the plan.”

Senior Wes Worster led the way with a third-place individual finish. His 2-under 214 equaled the fifth best in a conference tournament in school history. Senior Zach Fischer tied for 60th at 215. Other team members were sophomore Paul McConnell and freshmen Hunter Brown and Carson Kalls.

Worster and Fischer were named first-team all-conference. Fischer paced the Mavericks with a stroke average of 73.58, and Worster was second with a 73.12. McConnell, a transfer from Colorado, was named the conference’s Newcomer of the Year and was a second-team all-SLC selection.

Rees earned his third conference Coach of the Year award. He also received the honor in 2005 and 2009. UT Arlington won three tournaments during the season, the most in Rees’ tenure. The 10-stroke margin of victory is the ninth largest in school history in any tournament and third best in a conference championship.

The title earned the Mavericks a berth in the NCAA Southwest Regional in Tuscon, Ariz., where they finished 12th.

ROMAIN MARTIN

He’s a freshman at UT Arlington, a sophomore athlete according to the NCAA, and he’s younger than this country. Yet already he has claimed third in the heptathlon at the NCAA Indoor Track and Field Championships and ninth in the decathlon at the NCAA Outdoor Championships. It’s been a good year for Romain Martin, a 6-foot-7 native of France who helped the men’s track team reach a No. 24 national ranking. “I’m just trying to do my best,” he says. So far, Martin’s best has been historically good. He captured Southland Conference men’s indoor track Athlete of the Year honors after a breakthrough rookie season in which he set the UT Arlington heptathlon record. Early in the outdoor season, he shattered the school’s decathlon mark with 2,465 points. He won the decathlon at the conference championships and was named Newcomer of the Year. Though in his first year of college in the United States, NCAA regulations tab 20 years of age as his age (he attended two years of college in France). Athletics is his passion, and Berger calls Martin’s accomplishments “amazing.” During the NCAA Indoor Track Championships, he qualified as bested each of his personal records. That gives the track program hope that the best is yet to come.
With their quality, convenience, and breadth, UT Arlington’s award-winning online learning programs are attracting record numbers of students—from as far away as Japan and Kenya and as nearby as campus residence halls. BY TERESA NEWTON

Leslie “Tinkie” Williams’ first visit to UT Arlington was the day she walked across the Texas Hall stage at commencement. Like a growing number of students, the Tyler nurse earned her degree at her laptop, taking advantage of the University’s distance education offerings.

These online programs let individuals complete a course or finish a degree at their convenience, without family or work conflicts or the hassle of finding a parking space. About 300 UT Arlington instructors teach 700 different classes—from core courses to degree and certification programs—to students who may live halfway around the world or quite possibly across the street. In spring 2011 nearly 6,000 students had fully online schedules.

UT Arlington distance education offerings enrolled a record 22,443 in fall 2010, a boom from the 5,072 enrollments in fall 2009. According to the 2010 Sloan Survey of Online Learning, almost 5.6 million U.S. students took at least one online course in fall 2009, about a million more than fall 2008.

"We said early on that we would have classes via the Web," says academic affairs Assistant Vice President Pete Smith, who oversees the Center for Distance Education. "In 1997 that was radical."

Since then, UT Arlington has remained at the forefront, with programs garnering accolades such as Best in Nation from U.S. News & World Report and professors receiving four consecutive U.S. Distance Learning Association (USDLA) awards for quality, the only institution so honored.

As a leader in the UT System, the state, and the nation, the University continues defining and refining distance education. This year President James D. Spaniolo was named to the UT System’s new Task Force on Blended and Online Learning, and he and Dr. Smith have served on the Association of Public and Land-grant Universities/Sloan National Commission on Distance Education.

“We are committed to improving the quality of our academic programs, both in traditional classroom settings and through an array of online courses designed to deliver education where people live and work,” Spaniolo says.

NEAR AND FAR
Distance learners include students who can’t attend a class because of work, professionals wanting to advance their careers, soldiers overseas, and international students who may want to listen to a lecture two or three times. Online courses are great for the at-home mom or dad, a traveling business executive, a busy nurse or teacher, a high school senior seeking dual

FROM RADICAL TO RANKED
Correspondence courses offered by individual teachers started as early as 1728. The Chautauqua Correspondence Institute in New York opened for classes in 1883. Today’s programs rely on technology instead of the mail carrier. In 1997—when the Internet was young and delivery options were limited—UT Arlington’s new Center for Distance Education launched its first class, Political Science 2311, taught by Michael Moore, then a political science assistant professor.

"We are committed to improving the quality of our academic programs, both in traditional classroom settings and through an array of online courses designed to deliver education where people live and work," Spaniolo says.

"We said early on that we would have classes via the Web," says academic affairs Assistant Vice President Pete Smith, who oversees the Center for Distance Education. "In 1997 that was radical."

Since then, UT Arlington has remained at the forefront, with programs garnering accolades such as Best in Nation from U.S. News & World Report and professors receiving four consecutive U.S. Distance Learning Association (USDLA) awards for quality, the only institution so honored.

As a leader in the UT System, the state, and the nation, the University continues defining and refining distance education. This year President James D. Spaniolo was named to the UT System’s new Task Force on Blended and Online Learning, and he and Dr. Smith have served on the Association of Public and Land-grant Universities/Sloan National Commission on Distance Education.

“We are committed to improving the quality of our academic programs, both in traditional classroom settings and through an array of online courses designed to deliver education where people live and work,” Spaniolo says.

"We are committed to improving the quality of our academic programs, both in traditional classroom settings and through an array of online courses designed to deliver education where people live and work," Spaniolo says.
**“Flexibility definitely is the biggest one in my mind. You aren’t tied down by geography or a class schedule.”**

Scott Cunningham

“Flexibility is definitely a positive, something I’ve been thinking about in my mind. You aren’t tied down by geography or a class schedule.”

— Scott Cunningham

**Worldwide Reach**

Karen Elliott

“IT read to children at the Bafiki Village in Zamb. She worked on her Master of Education degree during frequent trips to Africa.”

Elliott wanted formal instruction in teaching after 10 years with the Florida-based Rathi Foundation, a nonprofit ministry with orphanages and vocational training centers in Africa, including Kenya, Zambia, and Tanzania. As director of Africa operations, she oversees schools and residential centers. “I want to give back more than an administrative degree in education,” says Elliott, who completed a Master of Education degree in curriculum and literacy studies in May. “I really wanted to learn how students at elementary and secondary levels learn. I wanted to focus on literacy, so this program fit the bill.”

“I travel a lot—three times a year for Africa to two to three weeks at a time—so I needed a program that would let me work on the degree from a distance.”

Close to campus, in Tyler, Texas, Tinkie Williams put her plans for a Bachelor of Science in Nursing on hold in the mid-1990s when she had a daughter and her mother was sick.

“It was one thing after another, then I started a business,” she says. “I turned around and 10 more years had passed. So finally, I decided to.”

Her sister, Liz Goodman, also a registered nurse, told Williams about the program offered by UT Arlington’s College of Nursing and challenged her to enroll. The sisters signed up but were in different cohorts, or branches, of the program.

“My daughter was in eighth grade when I started, and I graduated in the middle of her ninth-grade year. I helped her with biology, and she helped me with algebra,” Williams recalls. “Many nights I was working all night long in my pajamas. I do better when working independently.”

The hard work paid off, with Williams graduating summa cum laude in December 2010. Goodman graduated in May 2011.

On-campus students like public relations sophomore Zack Minter also benefit from online classes. He took classes at UT Arlington’s campus in La Par, Bolivia, in spring 2011.

“I had four regular classes and didn’t want to be in a classroom more than that,” says Minter, who is a resident assistant at Pecan Place Apartments and works at the Student Welcome Center. “With work, I would be busy from 8 a.m. to 8 p.m. This way I could study at my leisure and during the weekends.”

He praised Dr. Amacher for sending frequent emails to students, often suggesting a schedule for completing assignments. Minter plans to take more online classes to reach his goal of graduating in May 2013.

**Personal Touch**

Technology plays a role, but it’s the instructors who define distance programs.

“One thing that sets UT Arlington apart is that we have invested very heavily in faculty and policy studies for Distance Education,” says Dr. Moore, now senior vice provost and dean of undergraduate studies and the recipient of a 2010 USDLA Gold Best Practices Award of Excellence. “Student support specialists and instructional designers work with the faculty to create high-quality courses that are innovative and make the best use of technology.

“The faculty who are engaged in this are some of our best instructors. We’ve really relied on some of our best tenured and tenure track faculty.”

One of those is Nancy Hadaway, director of the Interdisciplinary training centers in and secondary education programs for the College of Education and Health Professions and a member of UT Arlington’s Academy of Distinguished Teachers.

She taught her mother was sick.

“Tinkie Williams,” 10, below left, and her sister, Liz Goodman ’11, earned nursing degrees online while living in East Texas.

**Virtual Graduation**

Williams arrived for her graduation last December not sure if she’d meet her online cohorts.

“We were all there at 6 p.m. and we went in at 7, trying to get in order,” she recalls. “They put us in alphabetical order and you could start telling who was who. I saw a few walk across the stage. “The camaraderie and pride from all the work, the cap and gown, the calling of your name. These are the moments when the hard work pays off. It was so intense for so long. It was kind of surreal.”

Her diploma looks the same as those for students who attend classes in brick and mortar buildings. A UT Arlington degree represents quality, whether earned online or in person.

“It won’t be long,” Smith says, “before we have a virtual graduation for those who can’t attend.”

**Student support specialists and instructional designers work with the faculty to create high-quality courses that are innovative and make the best use of technology.**

Dr. Amacher, who now teaches only online courses that sets UT Arlington apart is that we have invested very heavily in faculty and policy studies for Distance Education,” says Dr. Moore, now senior vice provost and dean of undergraduate studies and the recipient of a 2010 USDLA Gold Best Practices Award of Excellence. “Student support specialists and instructional designers work with the faculty to create high-quality courses that are innovative and make the best use of technology.

“The faculty who are engaged in this are some of our best instructors. We’ve really relied on some of our best tenured and tenure track faculty.**
Wired for Recovery

Dung Mai wants to know why he struggles taking tests. The UT Arlington exercise science junior thinks the research of Alexa Smith-Osborne and Hanli Liu can help him find the answers.

“When I came back to school, I had some test anxiety,” says Mai, a Navy petty officer who served stints overseas in Bahrain and Jordan. “I thought it might be more than just anxiety, so this research helps me find out what my brain is doing, where I am in learning.”

Dr. Smith-Osborne from the School of Social Work and Dr. Liu from the Bioengineering Department are exploring better treatment for veterans suffering from post-traumatic stress disorder, traumatic brain injury, and other issues that hamper cognition. They believe that using a hybrid of testing and diagnostics will lead to better therapy and care.
Liu says the key is joining the psychosocial assessments with physiological testing. “That will provide better information for where people are in their ability to learn.”

They aren’t the only UT Arlington researchers delving into veterans’ issues. Bioengineer Mario Romero-Ortega received a $2.2 million grant from DARPA, the research and development office for the Department of Defense, to further develop technology that will enable amputees to control and feel bionic limbs. The goal is to help the thousands of U.S. soldiers who have been wounded and lost one or more limbs by understanding why current peripheral nerve interfaces fail. Dr. Romero-Ortega hopes his neural interface will lead to a better prosthetic arm with more movement and even sensation.

Like Liu, Romero-Ortega works with researchers outside his department. One is mathematics Assistant Professor Yan Li, who specializes in biostatistics and biometrics.

Such interdisciplinary partnerships permeate the new Engineering Research Building. Other research in the 234,000-square-foot structure matches biologists with electrical engineering professors to detect viruses and fight pancreatic cancer, and bioengineers with physics professors to improve drug delivery systems for cardiovascular disease.

“To address today’s key medical problems, collaboration is essential,” says Ron Elsenbaumer, vice president for research and federal relations. “Not only does it foster complementary research, but, more importantly, the results are often better.”

**BROAD IMPACT**

Thousands of military veterans are taking advantage of legislation that helps pay for their college education. At UT Arlington, veteran enrollment reached 1,128 in spring 2011, more than double the number two years ago.

“Our researchers look at challenges and problems people face every day. Helping military veterans through University research is just part of who we are and what we strive to provide,” Dr. Elsenbaumer says. “I think many of these projects will help countless veterans live more normal lives.”

Research like Romero-Ortega’s offers hope for recent social work graduate Anthony Pone. “It’s like a bright light and gives us another option,” says the Army veteran and wheelchair basketball player, who uses a prosthesis and a wheelchair.

Even though the research could greatly enhance veterans’ lives, broader populations—like those involved in accidents—also could benefit. Romero-Ortega became involved in nerve regeneration because a childhood friend from Mexico lost the use of her legs in a car wreck.

“I wanted to do something about it,” he says. “This work could eventually lead to solutions for people so negatively affected in car accidents.”

The research of Smith-Osborne and Liu also could extend beyond helping veterans.

“The much broader use would be for any head trauma victims to use this hybrid system of brain scanning and testing to show what is happening so they can make more informed decisions to support quality of life, and to show doctors what treatment is best for specific patients,” Smith-Osborne says.

Other projects using the technology are taking shape. Bioengineering Assistant Professor George Alexandrakis has received a $1.16 million National Institutes of Health grant to use the brain-scanning device in research on children with cerebral palsy.

“It will be broadly explored through different departments targeting other important applications,” Liu says.

**SCANNING FOR SOLUTIONS**

UT Arlington is the only university in the world with three cutting-edge optical brain-imaging devices to explore applications in cognitive sciences. The emerging technology uses light to scan the brain and lets researchers “see” brain functions without invasive procedures. A veteran’s forehead can be scanned while he or she sits in a chair and takes cognitive tests.

“To see what the surface of the brain is doing while a person is taking a test or performing some task can give us new insight for treatment and therapy,” Liu says. “Plus, this machine is portable and easier to use than functional MRIs. Our method does not require whole body confinement, making the subject more comfortable during the measurements.”

Smith-Osborne and Liu met through discussion groups at UT Arlington’s Southwest Center for Mind, Brain and Education, which explores connections between brain anatomy and physiology, cognitive and physiological testing. "That will provide better information for where people are in their ability to learn."
“Rapid advances in engineering and cognitive science need to be translated to practical applications that people can use to reach their life goals.”

A MOVING EXPERIENCE
Romero-Ortega’s work has national appeal, too. His $2.2 million grant is part of the RENET (reliable neural interfacing) program led by Jack Judy, program director of DARPA’s Microsystems Technology Office in Arlington, Va.

Robotic prosthetics have advanced from simple hooks in the 1850s to multi-finger, electronically controlled hands with 22 degrees of freedom. Modern devices closely resemble a human hand.

But neural interfaces are required to give amputees the most natural control and sensory perception. The process involves connecting the robotic prosthetic to the user’s nervous system, and current technology is unreliable.

Human arms are controlled through thousands of nerve channels that allow the limb, hand, and fingers to operate independently and precisely. The channels enable motion and sensory control.

By contrast, the most advanced neural interface in peripheral nerves for prosthetic arms uses six to eight channels and allows only simple movement without sensation. Neural interfaces implanted directly in the brain can provide hundreds more channels, but that requires surgery.

“What makes our research different is that we're putting the neural interface in the limb itself,” says Romero-Ortega, who explains that the tiny interfaces allow the brain to interpret what the brain is telling it to do and the brain to interpret what the arm is doing.

About 90 percent of existing research in robotics and prosthetics focuses on the hand, an approach known as brain-machine interface. Yet there is still no long-term, neural-electronic interface.

“Our research moves away from the head and into the appendage itself, looking for neural reliability and stability,” Romero-Ortega says. “It integrates the nerve into electrodes through nerve regeneration.”

In addition to Yan Li, Romero-Ortega’s team features Young-tae Kim, a UT Arlington bioengineering assistant professor who works with markers of inflammation, neurointerfaces, and histology. The project also includes Harvey Wiggins, president and founder of Dallas-based Plexon, and research scientist Edward Keefe; both bring expertise in neurophysiology, multi-electrode electrophysiology, and biochemistry.

The group is working to open up more of those channels to the arm through electrical and molecular engineering. The aim is to find clear signals and results that lead to clinically viable engineered systems with sufficient reliability and stability to last 50-70 years.

Romero-Ortega says initial testing shows the potential to open up hundreds of nerve channels to a prosthetic. These open channels would enable the body to control the prosthetic as if it were real, giving new functionality to amputees.

“That’s exactly what Army veteran Pone, who lost his right leg in a car accident, hopes will happen. “I think the research could give you more feeling, make you more independent. That’s what we’re all after.”

Web extra: Watch a video at uta.edu/utamagazine.

neuroscience, educational philosophy, learning processes, and learning issues like dyslexia and attention deficits.

“I was looking for physiological testing, and Hanli said she had a portable, non-invasive brain-imaging machine,” Smith-Osborne says. “We started talking and decided to team up.”

In 2007 Smith-Osborne founded the Student Veteran Project, a clinical intervention that offers free services to help veterans returning to college. Some were experiencing learning difficulties associated with the interactive effects of post-traumatic stress disorder and traumatic brain injury, as well as prior learning disabilities and co-occurring conditions such as pain.

“They were also having delays and difficulty in obtaining prior educational records and updated comprehensive cognitive and educational assessments,” Smith-Osborne says. “Scarcity of health resources may limit the availability of such assessments to the most severely injured veterans served in polytrauma centers.”

A private donation fund has been established to help pay for the assessments, which typically aren’t covered by insurance.

“Rapid advances in engineering and cognitive science need to be translated to practical applications that people can use to reach their life goals,” Smith-Osborne says.

The program is open to all veterans.

Of course, we love to have UT Arlington veterans and other North Texas veterans in the program, but we’re also available to serve all veterans all over the country who are considering going to college.”

INNOVATION INSIDE
Research in the College of Engineering and College of Science collaborate in the 234,000-square-foot Engineering Research Building, which opened in January. Their projects include exploring cancer treatments, detecting deadly viruses, and improving the quality of life for older adults.
Poised atop the Texas Giant’s 153-foot big hill, preparing to hurtle down its 79-degree drop, roller coaster enthusiasts exult in the sheer adrenaline rush. This is exactly what they wish the world could be. And it’s what the world is at Six Flags Over Texas, the Arlington tourist icon now celebrating 50 years of fun. Of course, at Six Flags, that top-of-the-hill moment is followed by the thrill of a screaming downhill plunge into a record-breaking 95-degree banked curve.

The day the park opened in 1961, Arlington changed forever. And the city’s university has played an ongoing role. In fact, it seems UT Arlington alumni run the place these days.

Six Flags Over Texas President Steve Martindale ’81, earned his B.B.A. in management in 1981. Marketing director Jim Brothers received a marketing degree in 1982. Half a dozen other UT Arlington graduates, including the vice president for corporate sales and marketing and the vice president for corporate alliances, hold high-ranking positions at the park or its headquarters in Grand Prairie.

Brothers estimates that the University has supplied hundreds, if not thousands, of student workers. He and Martindale met as Six Flags employees in the 1970s. As ride operators, ride foremen, and operations supervisors, they learned the nuances of the 212-acre park. Once they had their UT Arlington diplomas, their careers took off like the coasters they still love to ride.

In honor of Six Flags’ half a century, UT Arlington Library Special Collections is hosting an exhibit, What You Wish the World Could Be: The Early Years of Six Flags Over Texas, featuring photographs, artifacts, and memorabilia. It recounts how Great Southwest President Angus G. Wynne Jr. saw the amusement park as a way to pay for the enormous industrial district then under development near state Highway 360 and the Dallas-Fort Worth Turnpike (now Interstate 30). According to Wynne’s son, Angus G. Wynne III, “The real project was Great Southwest. The park was really an afterthought.”

The elder Wynne’s first name for that afterthought...
was Great Southwestland, which UT Arlington information literacy librarian Evelyn Barker, one of the exhibit’s co-curators, notes did not “fall trippingly off the tongue.” An operation that welcomed more than half a million visitors from all 50 states in its first season could do better. Besides, Great Southwestland wasn’t painted on the entry signs, so a name change would require minimum undoing.

Wynn’s next idea was Texas Under Six Flags, but park lore has it that his wife insisted, “Texas was never under anything.” With a third try, he settled on Six Flags Over Texas.

That singular decision led to numerous firsts. For one thing, the Six Flags moniker gave the park a theme—Texas history. Each section—Spain, France, Mexico, Texas, the Confederacy, and the USA—offered rides and attractions based on the culture of that locale.

The second big game changer was one price for all attractions. Six Flags Over Texas, with the only one-ticket policy in the business, welcomed first-year visitors to a park full of rides and shows for $2.75 per person.

Those early rides built quite a fan base. The original ride still going is the steam railroad that circled the park. Its authentic steam engines, built in the late 19th and early 20th centuries, continue to fascinate children and adults alike.

Another early favorite, the Fiestas Train in the Mexico section, featured three giants, dancing tamaleas and was labeled “the most hilarious train ride of all” by the Giant as a worthy addition.

“American Coaster Enthusiasts has been hounding us for information on it,” says Martindale, who touts the petting zoo in 1979. Baskets of fish were sold to guests so they could feed the sea lions.

The ride now boasts the sharpest drop in the world for a wooden roller coaster. “Used to give new people a hard time. We’d send them looking for a squeegee sharpener and a vapor lock key. Neither thing existed.”

“Happy Motoring racetrack. “We used to give new people a hard time. We’d send them looking for a squeegee sharpener and a vapor lock key. Neither thing existed.”

One tha...
Vidor needed help. Population in the small Southeast Texas town near Beaumont had dwindled after a one-two punch from Hurricanes Rita in 2005 and Ike in 2008 caused extensive damage, with Ike forcing a two-week evacuation. Upon closer inspection, the storms revealed critical flaws in Vidor’s urban layout.

City officials turned to UT Arlington’s Institute of Urban Studies for solutions. The applied research arm of the School of Urban and Public Affairs is the state’s principal university-based program for mobilizing intellectual resources to meet the challenges facing Texas communities.

In Vidor’s case, these resources included urban studies graduate student Moses Pologne and Professor Ard Anjomani. Under Dr. Anjomani’s direction, Pologne and fellow students solicited input from government officials and the public, gathered and analyzed information, and visited the city for a firsthand understanding.

“The floodplains and lack of zoning ordinances were among the main things that presented a need for a comprehensive land-use plan,” Pologne says. “The plan will help the city develop those ordinances.”

Vidor’s reception was enthusiastic. And quick.

“It didn’t take long for the City Council to discuss and fully approve the plan,” Anjomani says.
Last year the Institute of Urban Studies completed more than 45 projects throughout Texas, from the Panhandle northblades, south to the Gulf Coast, east to the Piney Woods, and west to Big Bend. Many were in urban and rural North Texas.

“Those communities have gained direct benefits as a result of working with the school,” Dr. Becker says. “More, the growth also already under way for this year.”

AT YOUR SERVICE
The Legislature established the Institute of Urban Studies in 1967. After significant program and staff expansion, it grew into the School of Urban and Public Affairs in 1990. The institute, however, continues to operate as an integral part of the school.

The institute’s legislatively mandated mission is to conduct research and provide technical assistance to Texas and county government officials and public agencies, and to offer education and teaching opportunities for individuals and organizations interested in public service careers.

“Public service enriches the academic experience many times over.”

DEEP IN THE HEART OF TEXAS
Wander far and wide in Texas and you'll find hundreds of cities benefiting from the Institute of Urban Studies’ expertise. With more and more municipalities strug- gling to pay for services that number to rise.

“This kind of service has been going on for 40 years, although it has recently picked up new energy and vigor with so many more communities looking for a way to plan and spend smart in a down econo-

What makes the program unique is its combination of research and practical application. My degree at UT Austin was very theoretical. So I always promised myself that my students at UT Arlington would get a chance to also participate in applied work. As the University evolves, we’re evolving with it.

The evolution includes strengthening local econo-

In its first year, the Institute of Urban Studies completed more than 45 projects that saved the city and private developers more than $600,000 in expenses. It also received a 2011 Innovation Award from the international Alliance for Innovation Organization.

Communities with a well-designed public realm perform better economically over time, says Ginnette Thoppil, a planning manager at Arlington’s Community Development and Planning Department.

“Arlington businesses and neighborhoods that were hesitant to initiate physical improvements due to the cost are now taking the center's help in realizing their dreams,” she says. “The Arlington Urban Design Center has proved to be a time-saving and cost-effective solution to various design obstacles.”

As the University evolves, we’re evolving with it.”

THAT kind of experience and appreciation is very enriching for students,” Becker says. “But it’s also about doing something for Texas and its communities.”

SUMMER 2011 | 37

COMMUNITY TIES
Graduate students Sharmila Shrestha and Malcolm Glover work with the Oak Cliff Urban Design Storefront, a design and development partnership benefiting southwest Dallas.

DEIGNED TO IMPROVE
Students working in the Arlington Urban Design Center, above, take on redevelopment challenges. School of Urban and Public Affairs Dean Barbara Becker, right, says such outreach efforts offer the perfect mix of theory and practice.

false: Watch a video at uta.edu/utamagazine.

extra: Watch a video at uta.edu/utamagazine.

Another project includes a downtown study for Cedar Hill to reflect the city’s historic background, and identify properties to be acquired for low- to moder-ate-income housing in Grand Prairie. In Fort Worth, students provided revitalization plans for the Greater Northside area and engaged with the city on a commer-

A feasibility study focused on building a performing arts complex in downtown Dallas, as well as on land- use planning for the Trinity River Project. In Houston, an analysis examined the viability of creating a work center near the ship channel. For the U.S. Department of Justice, a project helped coordinate multiple Dallas agencies to reduce neighborhood gun violence.

The breadth of services creates well-prepared graduates.

Working at the Institute of Urban Studies provided me with a variety of work experiences and contacts with similar services, like the Oak Cliff Urban Design Storefront. The idea originated with the Oak Cliff Tran- sit Authority and has been endorsed by the Oak Cliff Chamber of Commerce and Dallas city planners.

One of the storefront’s first projects targets Jefferson Boulevard, the area’s main corridor, which has boomed with popular restaurants. Although a welcome develop-

The beat goes on, with SUPA students and faculty continuing to provide critical consulting on projects ranging from small to large: a community attitudes survey in Hal-

The Institute of Urban Studies' professional, readily available, and knowledgeable. Most importantly, this was not just an assignment to those involved. This project had meaning and a defined pur-

The success of projects like Vidor and the Arlington Urban Design Center (itself a recent planning associa-

Vidor Chamber President Bob Stimson says. “Students are not only documenting the need for additional parking but working on solutions that we hope to implement in the near future.”

The Arlington Urban Design Center, which won a Student Planning Award from the American Planning Association, brought that sense of achievement.

"W"hen students go into a community, they have a different perspective,” Becker says, “as residents of these communities see them as having no agenda, no profit motive. They’re welcomed, and their presence is meaningful.”

That excitement was evident when students visited Brucelleville-Eddy recently to begin work on develop-

ment planning. They were met with a great “Welcome UT Arlington” banner at the city limits.

That kind of experience and appreciation is very enriching for students,” Becker says. “But it’s also about doing something for Texas and its communities.”

"W"hen students go into a community, they have a different perspective,” Becker says, “as residents of these communities see them as having no agenda, no profit motive. They’re welcomed, and their presence is meaningful.”

That excitement was evident when students visited Brucelleville-Eddy recently to begin work on develop-

ment planning. They were met with a great “Welcome UT Arlington” banner at the city limits.

That kind of experience and appreciation is very enriching for students,” Becker says. “But it’s also about doing something for Texas and its communities.”

"W"hen students go into a community, they have a different perspective,” Becker says, “as residents of these communities see them as having no agenda, no profit motive. They’re welcomed, and their presence is meaningful.”

That excitement was evident when students visited Brucelleville-Eddy recently to begin work on develop-

ment planning. They were met with a great “Welcome UT Arlington” banner at the city limits.

That kind of experience and appreciation is very enriching for students,” Becker says. “But it’s also about doing something for Texas and its communities.”

"W"hen students go into a community, they have a different perspective,” Becker says, “as residents of these communities see them as having no agenda, no profit motive. They’re welcomed, and their presence is meaningful.”

That excitement was evident when students visited Brucelleville-Eddy recently to begin work on develop-

development ideas, updates of parks and land-use plans, and citizen/business surveys. Costs for the work often are modest payments to participating students, sometimes with a travel stipend.

Local, state, and federal entities ask SUPA profes-

sors and students to perform multi-year studies. A five-year impact study for Fort Worth addressed the forced relocation of Ripley Arnold residents from pub-

The Institute of Urban Studies work.

Public service enriches the academic experience many times over.
Alumni excel in leadership roles at area Fortune 500 companies

Some of the world’s largest corporations call North Texas home. ExxonMobil, AT&T, AMR, Texas Instruments, Burlington Northern Santa Fe, and Energy Future Holdings are among the two dozen Fortune 500 companies headquartered in the Dallas-Fort Worth metropolitan area.

As vice president for safety, security, and environment at American Airlines, alumna JoAnn Lee holds leadership positions at all 24 of the area’s Fortune 500 companies. Before taking the job in 2009, Campbell was vice president of technical operations for Delta, which ranks second on the Fortune 500 list, she oversees a $4 billion operation.

One such success story is alumna JoAnn Lee. As assistant general counsel for ExxonMobil, which ranks second on the Fortune 500 list, she oversees global litigation for the world’s largest publicly traded international oil and gas company.

Lee, who earned a bachelor’s degree in political science in 1976, and her team work to protect the company’s interests while maximizing its value for shareholders. She says she wouldn’t be where she is today without her UT Arlington education.

“UT taught me how to think critically and analytically,” she says. “In major corporations, that’s what it’s all about. You must be able to think analytically to solve issues and problems."

Snapshot

Football Reunion

Ken Bay ’81, left, and Cliff Oldom ’71 were among the hundreds of former football players and coaches who attended the Ultimate Huddle Football Reunion in June honoring the late Charlie Kay, a former player and coach.

Alumni News

Corporate Takeover

Alumni excel in leadership roles at area Fortune 500 companies

Some of the world’s largest corporations call North Texas home. ExxonMobil, AT&T, AMR, Texas Instruments, Burlington Northern Santa Fe, and Energy Future Holdings are among the two dozen Fortune 500 companies headquartered in the Dallas-Fort Worth metropolitan area.

As vice president for safety, security, and environment at American Airlines, alumna JoAnn Lee holds leadership positions at all 24 of the area’s Fortune 500 companies. Before taking the job in 2009, Campbell was vice president of technical operations for Delta, which ranks second on the Fortune 500 list, she oversees a $4 billion operation.

One such success story is alumna JoAnn Lee. As assistant general counsel for ExxonMobil, which ranks second on the Fortune 500 list, she oversees global litigation for the world’s largest publicly traded international oil and gas company.

Lee, who earned a bachelor’s degree in political science in 1976, and her team work to protect the company’s interests while maximizing its value for shareholders. She says she wouldn’t be where she is today without her UT Arlington education.

“UT taught me how to think critically and analytically,” she says. “In major corporations, that’s what it’s all about. You must be able to think analytically to solve issues and problems."

Alumni News

Alumni News

Corporate Takeover

Alumni excel in leadership roles at area Fortune 500 companies

Some of the world’s largest corporations call North Texas home. ExxonMobil, AT&T, AMR, Texas Instruments, Burlington Northern Santa Fe, and Energy Future Holdings are among the two dozen Fortune 500 companies headquartered in the Dallas-Fort Worth metropolitan area.

As vice president for safety, security, and environment at American Airlines, alumna JoAnn Lee holds leadership positions at all 24 of the area’s Fortune 500 companies. Before taking the job in 2009, Campbell was vice president of technical operations for Delta, which ranks second on the Fortune 500 list, she oversees a $4 billion operation.

One such success story is alumna JoAnn Lee. As assistant general counsel for ExxonMobil, which ranks second on the Fortune 500 list, she oversees global litigation for the world’s largest publicly traded international oil and gas company.

Lee, who earned a bachelor’s degree in political science in 1976, and her team work to protect the company’s interests while maximizing its value for shareholders. She says she wouldn’t be where she is today without her UT Arlington education.

“UT taught me how to think critically and analytically,” she says. “In major corporations, that’s what it’s all about. You must be able to think analytically to solve issues and problems."

Alumni News

Corporate Takeover

Alumni excel in leadership roles at area Fortune 500 companies

Some of the world’s largest corporations call North Texas home. ExxonMobil, AT&T, AMR, Texas Instruments, Burlington Northern Santa Fe, and Energy Future Holdings are among the two dozen Fortune 500 companies headquartered in the Dallas-Fort Worth metropolitan area.

As vice president for safety, security, and environment at American Airlines, alumna JoAnn Lee holds leadership positions at all 24 of the area’s Fortune 500 companies. Before taking the job in 2009, Campbell was vice president of technical operations for Delta, which ranks second on the Fortune 500 list, she oversees a $4 billion operation.

One such success story is alumna JoAnn Lee. As assistant general counsel for ExxonMobil, which ranks second on the Fortune 500 list, she oversees global litigation for the world’s largest publicly traded international oil and gas company.

Lee, who earned a bachelor’s degree in political science in 1976, and her team work to protect the company’s interests while maximizing its value for shareholders. She says she wouldn’t be where she is today without her UT Arlington education.

“UT taught me how to think critically and analytically,” she says. “In major corporations, that’s what it’s all about. You must be able to think analytically to solve issues and problems."

Alumni News
Leading the Way

Executive Committee advances alumni programs

The UT Arlington Alumni Association Board of Directors comprises 36 graduates who represent the diversity of more than 150,000 Maverick alumni worldwide.

Dedicated to helping the Alumni Association connect alumni to their alma mater, the group meets four times a year to interface with students, University stakeholders, community leaders, legislators, and alumni. The board serves in an advisory capacity to the Executive Committee, nine alumni who promote, support, and advance Alumni Association programs and services.

Executive Committee President Bob Watson earned his bachelor's degree in civil engineering at UT Arlington in 2005 and is now pursuing a Master of Public Administration degree at the University. A licensed professional engineer, he works for the city of Arlington's Public Works and Transportation Department.

Robert Rivera, vice president of awards and recognition, is an Arlington City Council member. He co-founded “Touchdown Arlington!” and has served on the Arlington Park Bond Committee, Arlington 2025 Futures Committee, Arlington Convention and Visitors Bureau Board of Directors, and Arlington Library Board. He received a bachelor's degree in political science in 2007.

James Bilingulay, vice president for facilities stewardship, earned a B.B.A. in 1987. He is a partner in the law firm of K&L Gates, LLP, where he specializes in complex business restructurings, distressed acquisitions, international insolvencies, and insolvency litigation. Robert Strong, vice president for membership and marketing, is the Texas state president of the International Facility Management Association. He received a bachelor's degree in 1978 and is a former UT Arlington adjunct faculty member in economics and finance. He recently received an honorary membership for lifetime career achievements from the University's Beta Gamma Sigma business honor society.

Jim Herckt, vice president of constituent groups and scholarships, graduated in 1998 with a bachelor's degree in architecture. He is a project architect with the architecture firm of HKS Inc. and is certified by the U.S. Green Building Council. He currently serves as past president of the Architecture Alumni Chapter and as a chair of the Topping Out Awards Program.

Secretary Lisa Kruczynski is an independent consultant specializing in social media strategies and internet marketing. She also works as an adjunct instructor for the UT Arlington Fort Worth Center.

President-elect Neer Patel graduated in 2006 with a bachelor's degree in information systems. He is an information technology director and system developer for PetroData Business Systems in Arlington. He serves on the board of directors for the Epilepsy Foundation of Texas and volunteers at the organization’s summer camps for children with epilepsy.

INeSTANT ACCESS

A new iPhone application puts the latest UT Arlington information at your fingertips. Called UTA Mobile, the app makes it easy to check the University calendar and browse news releases. You can also access news, schedules, and up-to-the-minute access to Maverick athletic events. The app allows you to search campus buildings by name, pinpoint them to see your location, and zoom in on a multi-touch interface. Other features connect to UT Arlington’s YouTube channel and to an extensive gallery of campus photographs. To download the free app, go to the iTunes Store and search for UTA Mobile.

SUMMER 2011 | 41

Gulin, China

Alumni

Hiking the picturesque rice terraces in Gulin, China, offers the Norwood family a welcome respite from the frantic pace of Shanghai. “The terraced terraces are gorgeous and give you a chance to interact with the people who live there,” says Sharon Norwood, who earned a social work master’s degree from UT Arlington in 1999. Sharon and husband Curtis, who completed his master’s in engineering management in 2006, are parents and their children, Madison and Ellen, moved to Shanghai in November 2010 when Curtis became the group managing director for Martin Sprocket & Gear in China. If you’re an HNTV fan, the Norwoods may look familiar. They appeared on an episode of House Hunters International that aired in February and chronicled their relocation from Arlington to China. “With everything going on—business opportunities, new hobbies, etc.—you can do it.”
1895 SOCIETY MEMBERSHIP SURGES TO ALL-TIME HIGH

Membership in the 1895 Society is on pace to reach 450 this year—a jump of more than 44 percent in five years. The unprecedented growth is due, in part, to the work of Linda Dipert and Mike Farhat, left, and other members of the 1895 Society Committee. In September 2009 the UT Arlington Development Board created the committee and charged it with increasing the number of leadership donors. Under the direction of Farhat ‘72, members have communicated to alumni and community leaders the importance of UT Arlington’s mission and encouraged them to invest in the University through the 1895 Society membership. “UT Arlington contributed greatly to my success in business,” says Farhat, who chairs the committee. “I want others to recognize that UT Arlington impacted them and to pay it forward by joining the 1895 Society.” Named for the year UT Arlington was founded, the society recognizes donors who make an annual contribution of $1,000 or more to any University program during the fiscal year (Sept. 1-Aug. 31). Gifts support cutting-edge research, outstanding teaching, state-of-the-art facilities, and student scholarships, and propel UT Arlington toward its goal of being a major national research university.”

As the largest contributor to economic development in our community, UT Arlington improves the quality of our lives,” Dipert ’01 says. “It gives me great satisfaction to be a part of the UT Arlington mission of giving back to the community.” Composed of UT Arlington Development Board members, the 1895 Society Committee hosts several events each year. For information about joining the 1895 Society, contact Meg Weber, director of University Development, at 817-272-0850 or weber@uta.edu.

Solid Foundation
Gift establishes nursing, engineering scholarships

A pioneer in construction concrete is helping support the next generation of innovators at UT Arlington.

When David E. Bloxom was developing a lightweight concrete in the 1950s, he asked researchers at UT Arlington (then Arlington State College) to help him test the material and get his idea patented. With assistance from faculty members in the College of Engineering, Bloxom provided studies proving that this new concrete would greatly benefit the construction industry.

He went on to become one of the first men in America to use precast concrete in building construction and later started his own company, Speed-Fab-Crete, which constructs buildings using prefabricated lightweight concrete panels. But he never forgot the people who helped him along the way.

Bloxom helped establish the College of Engineering’s Construction Research Center, served on the College of Engineering Advisory Committee, and was a member of the Nursing Advisory Council. (He was friends with the husband of the college’s founding dean, Myrna Pickard, and once told Dr. Pickard, “Nurses are the greatest thing in the world.”)

When he died in 2000 at age 77, Bloxom in his will had seen so many people with good ideas who wanted to succeed but didn’t have the money to make it happen,” Dowdy says. “Scholarships made sense because he always said that without the backing of his friends, he would never have made it. He met most of those friends in college.”

UTArlington Magazine SUMMER 2011 43
1961 Daniel J. O’Connor (BA, History) is executive secretary of the University of Oklahoma Alumni Association Region V music contents. He served as band director for 20 years and director of fine arts in the independent school district for 20 years. He is a member of the Texas Bandmasters Hall of Fame.

1969 Mike Groves (BS, Mechanical Engineering) and his wife, Janet, Jarrella (BA, Education) founded a College of Engineering endowment that will total $1 million over time through the Maverick Match programs. Groves recently retired after a 40-year career in business. He served as vice chairman of Energy Future Holdings, the former YKCO Inc.

1970 Cindy Baw (BA, English) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She teaches English at Tarrant County College Northwest Campus.

1971 Donna Darovich (BA, English) is a member of the Texas Bandmasters Hall of Fame.

1974 David E. Pace (BA, Political Science) is president and CEO of Dover Corporation and previously was senior vice chairman of the Grand Venue Inc. in Kansas City, Missouri.

1975 AnngetReference (BA, Communication) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She teaches English at Tarrant County College Northwest Campus.

1979 Monte Akers (BA, History) has taught for 30 years at the University of North Alabama and in Alabama and is currently enrolled in classes. He is good for the rest of this year through the Maverick Accidental Alumni program.

1981 Charles R. Atkinson (BS, Civil Engineering) has been named director of global brands and corporate compliance officer, administration manager, branch credit manager, and commercial and consumer loan officer.

1985 Bradley Bolon (BM, Music) was named senior vice president of Dallas Independent School District. He played football at Baylor University and is a graduate of the University of North Texas. He was also a two-time All-American and team won the Class 5A state championship in 1985.

1989 Randy Perry (BA, Political Science) was named senior vice president of the Malakoff Independent School District in the past 30 years. He has a master’s degree in public administration.

1993 Bruce Schlehuber (BA, Marketing) is marketing and outreach coordinator at Central Texas College in Killeen.

1996 Allen Bogard (BA, Political Science) is in his 20th year as head girls basketball coach and lineback coach at the University of Minnesota. He is a recent inductee into the National College Football Hall of Fame.

2001 Donna Drätz (BS, Business Administration) has retired as vice president and chief financial officer of the University of Health Sciences and Technology at Oklahoma State University. She chairs the School of Medicine and law and management company at Chicago, Illinois.

2004 Kerri Knighton (BS, Architecture) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She is also a chemistry adjunct professor at Tarrant County College South Campus. She completed her PhD in chemistry at the University of North Texas in 2010.

2006 Daniel Nelson (91-MBA, Business Administration; 95 PhD, Mathematical Sciences) is a professor of Business Administration and Professor of Mathematics at Oklahoma State University. Wandala Talton (BA, Mathematics; 84 MS, Interdisciplinary Studies) is a 2011 community columnist panel member for the Star-Telegram. She has taught eighth-grade mathematics for the past 13 years, including 20 years as a varsity football coach at Bowie High School. She was named to the Class of 2011 Texas bandmasters hall of fame.

2011 Lisa Renner (BA, Political Science) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She teaches English at Tarrant County College Northwest Campus.

2013 Frances C. Price (BA, Business Administration; 83 MPA) taught eighth-grade history for 20 years at West Richia Winn (BA, Journalism) is a sports blogger for the Dallas Observer. He also co-hosts a sports show on 105.3 FM The Fan.

2015 Charles Liang (BS, Electrical Engineering) is executive vice president and chief executive officer of Super in the City. He oversees communications and reports directly to the president.

2017 Marna Yerigan (BBA, Marketing) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She teaches English at Tarrant County College Northwest Campus.

2018 Charles Gumbert (BS, Computer Science) was named interim chief of staff at Malakoff Independent School District in May. He had served as principal at Malakoff High School high school through the 2017-18 school year.

2019 Jane Pavelko (BA, English) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She teaches English at Tarrant County College Northwest Campus.

2021 Stephen Ye (BS, Civil Engineering) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. He plans to practice and oral surgery at the University of Health Sciences Antigua in 2011 after graduating from the University of Health Sciences, Texas, and in Graham, Texas.

2022 Lynn Zander (BA, English) is a 2011 community columnist in the Dallas Morning News for the Fort Worth Star-Telegram. She teaches English at Tarrant County College Northwest Campus.
column on politics, feminism, and dining articles about USAL 

Dining Out Dallas and dining appear in 

Wear your UT Arlington pride for everyone to see. 

Put a Ring on It! The Official Maverick Ring

Your UT Arlington pride for everyone to see. 

Wear your UT Arlington pride for everyone to see. 

Wear your UT Arlington pride for everyone to see.
In Memoriam

1940s

Cecil Pitts Dotson (42 A&S, Liberal Arts), 86, June 22, 2010, in Dallas. In 1958 Mr. Dotson was named chair of the British subsidiary for Texas Instruments, and he worked on local semiconductor plants around the world and managed TI’s semiconductor plant in France before returning to Dallas. He was vice president and manager of corporate resources and services when he retired in 1973. Rodolph J. Marcuse Jr. (44 A&S, General Studies), 85, Dec. 20, in North Richland Hills. Mr. Marcuse was retired from Marcor and Son Inc of Fort Worth. He worked with Worth Ranch Scout Camp and held numerous leadership positions.

1960s

Jackie Hughes (65 BBA, Business Administration), 70, Dec. 1 in Arlington. Mr. Hughes worked for the Internal Revenue Service and, after retirement, started his own business preparing personal income tax returns. Barry Dels Jenks (66 BBA, Business Administration), 70, March 10 in Fort Worth. Mr. Jenks joined the denim & Jacson law firm in Arlington for years and most recently was a contract attorney with Ross & Matthews, LLP, in Dallas. William A. Blackwell (67S, Mathematics), 66, Dec. 12 in Plano, Texas. Mr. Blackwell started his own computer business and later operated an RV business. William Henry Dennis (69 BBA, Business Administration), 82, Feb. 24 in Arlington. Mr. Dennis worked for American Biomedical and Colonial Country Club. He owned The Eyeglass Shop for 10 years before going to work for American Airlines.

1970s

Robert W. Case (70 B.S., Mechanical), 63, Sept. 15 in Bowie, Texas. Mr. Case owned and operated M&C Camera in Grapevine for 25 years. Cornell Gilmore Jr. (70 B.S., Mathematics), 62, Nov. 13 in Missouri City, Texas. Mr. Gilmore was a vice president for Packaging Specialists in Mission Viejo, Calif., and a regional sales manager for many years. Walden E. Lyle (72 BBA, Business Administration), 71, Dec. 29 in Lubbock. Mr. Lyle worked in merchandising for Fleming Foods. Terry Randall Collins (73, B.S., Mechanical Engineering), 64, Dec. 10 in Fort Worth. Mr. Collins was president of Datacom. He was a software engineer for Hewlett-Packard and a systems engineer for Richardson-based System Solutions. Roy B. McDonald (73 BBA, Business Administration), 71, Feb. 16 in Arlington. Mr. McDonald worked for Telex Markits before starting his own recycling company, R&D Plastics, in 1984. Douglas W. White (73 B.A., History), 82, Nov. 10 in Richmond, Ore. Mr. White was executive director of Step Forward Actions in Baker City, Ore. He was an avid hunter and fisherman. Thomas James Albus (74, B.S. in Economics), 80, July 25 in Arlington. Mr. Albus worked at Jepco Services & Service in Richardson. After retirement, he worked at the Arlington Municipal Airport. Robert “Handy” Goss (74 BBA, Business Administration), 74, Dec. 21 in Grapevine. Mr. Goss retired from Verizon as a supervisor and had 25 years experience in the insurance industry. He served as a city councilman and mayor pro-tem of Glenn Heights, Texas. Marilyn Lantel Numfeld (75 B.S.I.), 57, March 4 in Hurst. Ms. Numfeld worked at E.H. Hospital in Bedford before retiring to raise her sons. Susan Carol Rusten (82 B.S.PH), 58, Dec. 29 in Fort Worth. Ms. Rusten taught at the Louisiana State University Law School in Baton Rouge and taught special education in the Arlington Independent School District. Melissa Miel (76 B.A., Journalism), 57, Jan. 28 in Fort Worth. Ms. Hall was a freelance writer, artist, and photographer. She worked for Barbara’s Bookstore and served as a critic, reviewer, and editor for many public libraries.

2000s

Fernanda Terentieva Titimis (72 MD), 59, Dec. 11 in Austin. Mr. Titimis was an entrepreneur who owned and operated a personal training business. He also had a career in social work as a case-worker with Child Protective Services. Vijayeshri Ramavanswaram (70, Electrical Engineering), 77, Aug. 30 in Mableton, Mass. Mr. Ramavanswaram worked at the Boeing Research and Development Center, part of the Center for Engineering in Medicine at Texas A&M University, and served as the Massachusetts General and Harvard University neurosurgical hospital. Jillian Michelle Smith (70 B.A., Communications and Journalism), 24, Dec. 28 in Arlington. Ms. Smith was an officer in the Arlington Police Department.

Faculty and Staff

Leonard M. Diana, 80, Jan. 21 in Arlington. Dr. Diana was a professor emeritus of physics and a member of the UT Arlington faculty for 30 years until his retirement in 1995. He was a fellow of the American Physical Society and of the American Association for the Advancement of Science. He died Dec. 10 in Arlington. Dr. Moore was a professor emeritus of mathematics at the UT Arlington for 44 years before retiring in 2000. He was an expert in commutative ring theory and module theory. Frank Moreland, 73, Dec. 14 in Fort Worth. Mr. Moreland was an associate professor of architecture at UT Arlington, 1973-1988. He was an associate professor of architecture at UT Arlington, 1973-1988. He was a fellow at Penn State University before starting his own firm to build sustainable and solar-powered homes. He wrote several books on architecture and served as the chair of the Department of Biological Sciences.

Jerry Andrew Waldrup (75 B.A., Business Administration), 58, Dec. 29 in Fort Worth. Ms. Roaten taught special education in the Fort Worth Independent School District. Jerry Waldrup, 83, June 22, 2010, in Fort Worth. Mr. Waldrup was a contract at-

ut andy Randal (77 MA, Linguistics), 73, Feb. 9 in North Richland Hills. Ms. Griffith taught at Everman High School, Southlake Carroll High School, and St. John the Apostle Catholic School. William A. McDonald (81 B.S., Engineering in Medicine at UT Arlington. Ms. Meltzer worked at the BioMEMS Resource Center, part of the Center for Engineering in Medicine at Texas A&M University, and served as an LTV subsidiary.

1980s


1990s

James W. Blackwell (77 MA, Linguistics), 73, Feb. 9 in North Richland Hills. Ms. Griffith taught at Everman High School, Southlake Carroll High School, and St. John the Apostle Catholic School. William A. McDonald (81 B.S., Engineering in Medicine at UT Arlington. Ms. Meltzer worked at the BioMEMS Resource Center, part of the Center for Engineering in Medicine at Texas A&M University, and served as an LTV subsidiary.

2000s

Fernanda Terentieva Titimis (72 MD), 59, Dec. 11 in Austin. Mr. Titimis was an entrepreneur who owned and operated a personal training business. He also had a career in social work as a case-worker with Child Protective Services. Vijayeshri Ramavanswaram (70, Electrical Engineering), 77, Aug. 30 in Mableton, Mass. Mr. Ramavanswaram worked at the Boeing Research and Development Center, part of the Center for Engineering in Medicine at Texas A&M University, and served as the Massachusetts General and Harvard University neurosurgical hospital. Jillian Michelle Smith (70 B.A., Communications and Journalism), 24, Dec. 28 in Arlington. Ms. Smith was an officer in the Arlington Police Department.

Faculty and Staff

Leonard M. Diana, 80, Jan. 21 in Arlington. Dr. Diana was a professor emeritus of physics and a member of the UT Arlington faculty for 30 years until his retirement in 1995. He was a fellow of the American Physical Society and of the American Association for the Advancement of Science. He died Dec. 10 in Arlington. Dr. Moore was a professor emeritus of mathematics at the UT Arlington for 44 years before retiring in 2000. He was an expert in commutative ring theory and module theory. Frank Moreland, 73, Dec. 14 in Fort Worth. Mr. Moreland was an associate professor of architecture at UT Arlington, 1973-1988. He was an associate professor of architecture at UT Arlington, 1973-1988. He was a fellow at Penn State University before starting his own firm to build sustainable and solar-powered homes. He wrote several books on architecture and served as the chair of the Department of Biological Sciences.

Jerry Andrew Waldrup (75 B.A., Business Administration), 58, Dec. 29 in Fort Worth. Ms. Roaten taught special education in the Fort Worth Independent School District. Jerry Waldrup, 83, June 22, 2010, in Fort Worth. Mr. Waldrup was a contract at-
The Maverick Speakers Series appearance by Cal Ripken Jr. in February wasn’t the first time a baseball Hall of Famer has visited the campus. Cleveland Indians pitcher Bob Feller, center, answered questions from Shorthorn editor Vivian Walker during a late-1940s sojourn to Arlington. Known for his 100-mph fastball, Feller was only 17 when he struck out eight St. Louis Cardinals in three innings of an exhibition game. He spent four years in the Navy during the peak of his career but still recorded 266 wins and entered the Hall of Fame in 1962. He died last year at age 92. Observing the interview were Feller’s uncle, Harry Ford, and English Professor Duncan Robinson, The Shorthorn faculty sponsor. Robinson taught at UT Arlington for 50 years and is a member of the University’s Walk of Fame. Photograph courtesy of The University of Texas at Arlington Photographic Collection, Special Collections, UT Arlington Library.