

SPSU

THE MAGAZINE | SPRING 2011



Pomp and Circumstance ¹⁰⁰

SPSU

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Greetings from SPSU!

As the azaleas bloom on the Southern Polytechnic campus, we are preparing to celebrate the 100th commencement for this institution. Our recent growth in enrollment and graduation rates means that we now have so many graduates and guests that we schedule two ceremonies per commencement day to celebrate the achievement of our students.

The first commencement at Southern Technical Institute was held on September 6, 1949. That graduating class had 57 people, of whom 10 (18%) graduated with honors. The speaker was William Sutlive, president of the Associated Industries of Georgia, an organization that played a central role in advocating for the creation of the "Institute."

100 commencements later, SPSU still reflects some of those characteristics of the first ceremony. About 25% of the graduates will be recognized with honors for their academic success. Commencement speakers continue to highlight the strong relationship between the institution and the world of business and industry. The speaker at the 100th ceremonies will be Shan Cooper, vice president of Lockheed Martin Aeronautics and general manager of the Marietta facility; Lockheed is an important supporter of Southern Polytechnic, and that company is the single largest employer of our graduates.

On the other hand, some aspects of the University have changed enormously since that first commencement. The 100th commencement will see about 440 graduates receive diplomas. While the first graduates were mostly Georgia residents, the 100th group will represent about 17 states and 30 different countries. And while the first commencement conferred degrees in 8 disciplines, SPSU is now authorized by the Board of Regents of the University System of Georgia to award degrees in nearly 50 areas.

SPSU has grown in size, in diversity, in programs, and in stature. As we celebrate our 100th commencement, we also remember the important beginnings of this institution and the very first degrees awarded. In doing so, we honor all our graduates. What will SPSU look like when we celebrate the 200th commencement ceremonies?

In this magazine, you'll read about the reflections of some past graduates, which highlight the excitement of commencement. You'll learn about current faculty research, student activities, athletics, and new facilities. As always, you are warmly invited to visit campus and see in person all the great things happening here.

I hope to see you around campus soon!



Lisa A. Rossbacher, Ph.D.
President



'POMP AND CIRCUMSTANCE'



Southern Polytechnic State University

CONGRATULATIONS

CONGRATULATIONS



Southern Polytechnic State University will celebrate its 100th commencement exercises on Saturday, May 7. This year’s class of 430 marks the largest graduating class in the university’s 63-year history. They are joining the alumni ranks of the more than 20,000 SPSU graduates who have come before them. As part of the celebration, we are highlighting some former graduates, (and the former president) and their most distinctive graduation ceremony memories, in their own words.

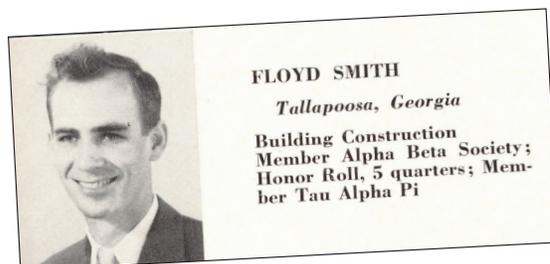
The ceremony was very short because there were so few of us—less than 60 students. I graduated on March 18, 1950. I was originally scheduled to graduate in December 1949, but on Dec. 1, I suffered a ruptured appendix and spent two weeks in the hospital.

Everyone was very happy to be done with school. One funny memory about the ceremony is that there were two students from Carrollton whose last name was Denny. The president called out the first one, then the other, and then just asked for the Denny brothers. They weren’t brothers; they were first cousins. But, of course, nobody knew that but the Denny family and the students.

Southern Tech was, at that time, using a section of the National Air Station adjacent to what is now Peachtree-Dekalb Airport, and Southern Tech’s first official commencement was held in the post’s theater.

The college started out with 116 students, 106 of whom were WWII vets who, like me, were on the GI Bill. We vets preferred two-year schools like Southern Tech, because we had just given five years of our life to military service and didn’t have time for four years of college—we were eager to get on with our lives.

FLOYD “SNUFFY” SMITH ‘50



When I arrived as Southern Polytechnic State University’s first president in 1980, the tradition (that we continued) was to have graduation ceremonies outdoors in the “Sycamore Circle” next to the library. We would set up a stage under the trees and the audience would sit on folding chairs. Although it could be pretty hot some days in June, overall it was a beautiful way to stage graduations.

We were amazingly lucky that it never rained on these days until one year that many of us will never forget. Just after the guest speaker had concluded, and before the awarding of diplomas, the skies suddenly opened up with torrential rains. Of course all of the family members and guests were in their finest attire and there was nothing to do but to have everyone literally run for cover (as most had already begun to do without my telling them that we were suspending the activities). Since rain had not been forecast, most did not even have an umbrella.



At that time the library rotunda had not yet been enclosed (in fact there was a tree growing in the middle of the rotunda) so everyone – graduates and guests alike – crowded into that small space. After a long wait, the rains lessened and we quickly handed out the degrees with everyone completely soaked and many guests not even taking their seats again.

Needless to say, from that year on we moved spring graduation ceremonies to the gym. As nice as it was to have no weather worries in the gym, I always missed the quiet serenity of having the ceremonies “out in nature.”

DR. STEVE CHESHIER,
PRESIDENT, 1980-97

“As the ceremony commenced, the professors entered, impressively dressed in their colorful and elegant regalia. The ‘Pomp and Circumstance’ processional nearly brought tears to my eyes.”

— Sharon Perry '96

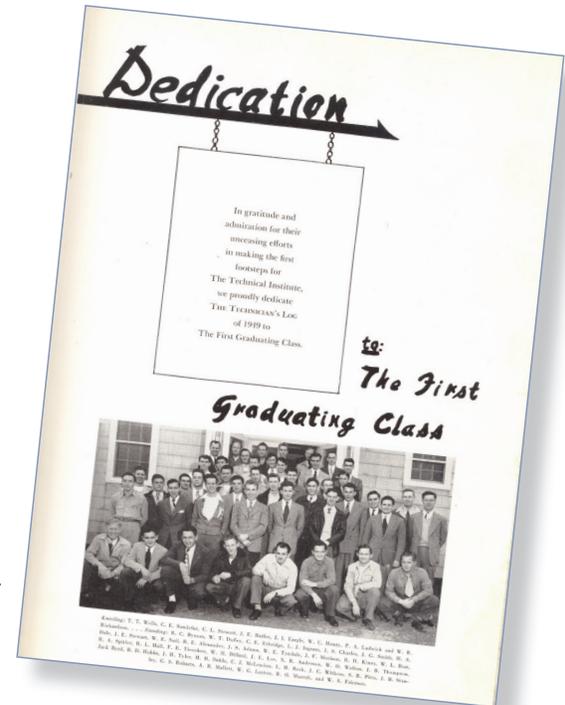
My graduation experience at Southern Polytechnic State University (Southern Poly) was pretty interesting. I graduated in June 1988 with a B.S. in electrical engineering technology. I worked full-time and attended school part-time, so when I finally finished (eight years), I couldn't believe it. I started at Morehouse College (1980-81), Atlanta Junior College (1981-84)—A.S. Engineering Technology and Mathematic, and then Southern Poly (1984-88).

The thought never crossed my mind about not finishing school; it was just a matter of when. However, when I did finish, it felt like a dream and I remember telling my uncle, “We did it.” You see, I was the first person in my family to earn a college degree and had such a feeling of accomplishment. My whole family had been waiting for a long time (grandmother, mother, uncle, and sister). My grandmother, who always believed in me, passed away in 1986, so that made it even more special when I graduated.

The rigorous program at Southern Poly gave me the confidence I needed to believe I could do anything. Since completing my education at Southern Poly, I graduated from the University of Maryland in 1995 (M.S. Telecommunications Management); Johns Hopkins University in 2007 (M.S. Systems Engineering); and currently I am pursuing a Ph.D. in Engineering Management at Stevens Institute of Technology, Hoboken, N.J. (online).

I've been working in the information technology (IT), telecommunications, project management, systems and engineering industry for over 26 years. I owe a lot of my success to the education I received at Southern Polytechnic State University. I am very proud and fortunate to have graduated from the university.

GEORGE GRANT '88



At 5 p.m. on the Friday before graduation, I turned in my last final exam. I knew that was “pushing it,” but that was just how it worked out!

The next day at graduation—which was in June and at least 95 degrees outside—I had family in from out of town, and I was the first person in the family to have graduated from college, so it was a “big deal.” Fellow graduates were coming back from the stage with their diploma cases in hand, proudly displaying the contents (diplomas, “With Honor” badges, etc.) to their classmates. I got my holder, came back to my seat, opened it up ... and it was EMPTY!!

Panic! What the heck? Did I not pass that final? I'd felt so confident!?!? So, there I was, all 260 pounds of me running up the hill to the Registrar's Office in my black polyester gown in the sweltering heat.

Fortunately, the staff was all in there prepping diplomas to be mailed out. I begged, and they went and found mine (seems the final was turned in too late on Friday for them to have prepped my folder

for the ceremony). Grateful, with diploma in hand, I went lumbering back down the hill to the gym to bask in the glow of a proud, happy family.

To this day, my gold “With Honor” sticker still has a thumbprint “engraved” into it - a casualty of the frenzied effort to save the day!

RON SKOPITZ '94

I was so excited as I put on my SPSU [Southern Polytechnic State University] graduation cap and gown. Years of working all day and going to school at night were coming to a successful conclusion. My parents would be there. My children would be there. They did not know it yet, but I had a huge surprise in store for them—a new job!

As the ceremony commenced, the professors entered, impressively dressed in their colorful and elegant regalia. The ‘Pomp and Circumstance’ processional nearly brought tears to my eyes.

After graduating from SPSU, I began a new job, with a prestigious company, at nearly DOUBLE my existing salary! Thank you SPSU for the education and training that prepared me for this new chapter. As a single mom, my education and new career enabled me to provide stability and benefits that only come with executive positions.

Looking back, I realize that the time spent at SPSU and this first position were major turning points in my career. With my new career, I was surrounded by innovators and experts in the advancing technological movement. The educational and professional relationships I developed during that period continue to play a major role in my ongoing success.

Thank you again SPSU for helping me to become a well-educated, successful businesswoman.

SHARON PERRY '96

I graduated Dec. 5, 1997 with a master’s degree in technical and professional communication. Dan Papp, currently the president of Kennesaw State University, was interim president of SPSU [Southern Polytechnic University] at the time.

I had been working at SPSU for a couple of years, first as a student assistant in the Veteran Affairs Office and then (at the time I graduated) as Assistant to the Director of Admissions and Acting Registrar. As the Assistant to the Acting Registrar, my duties were to assist with graduation in any way directed, which meant setting up diplomas, arranging the gym, getting programs, flowers, and all the other things needed in place and on time.



After much thought, I decided I wanted to walk. Everything leading up to the ceremony was typical, and I prepared just as if I were not going to walk. Then, as the music started, I jumped into line and sat with the other graduates for the ceremony.

When my turn came to receive a diploma, I walked across the stage, took my green cover, returned to my seat, and like everybody else, the first thing I did was open the cover to check out my new diploma.

To my surprise, instead of the diploma I was expecting, there was a fake diploma with the name Steven Drew Hamlick (contrived from several random names students had used to ask for me at various times), and where the seal was supposed to be, there was a picture of Alfred E. Newman (from MAD Magazine). Dan Papp had colluded with the staff to be sure I got something of a shock when I opened up the cover. Luckily, right underneath was my real diploma, so my shock was short-lived.

Since they had gone to the trouble to include the fake diploma, I framed it, and it hangs on my wall today alongside the real one as a reminder of the event and of the camaraderie we shared then, and continue to share today.

STEPHEN HAMRICK '97

It was a special day for me to see many of the professors who I hadn’t seen in months or years congratulating me for my accomplishment. My friends and family members were cheering me on in the stands, and my colleagues were taking the walk with me to our final seats as undergraduate students. The final few moments before the commencement started were unique because I had a nostalgic feeling about this day as if I had experienced it before, but it was because subconsciously I was recapping my college days. It is a special and unique day for every student walking the plank, but for me, it was a day I will remember forever.

AAKASH SHAH '06

As I was there at graduation, I couldn’t help but be nervous because my graduation represented a lot of firsts in the family. I was the first in the family to earn a degree that year—by only a few days—since my mom graduated from Mercer University with a degree in education a few days later. I was the first to go directly from high school to college. While I was nervous, it was easily replaced with calm as I saw professors and recounted the memories from their classrooms. The degree meant much more than just a degree, it was the sum of the love and support from family, friends, professors, teachers, and countless others.

JONATHAN MEEK '10

New face for a familiar place

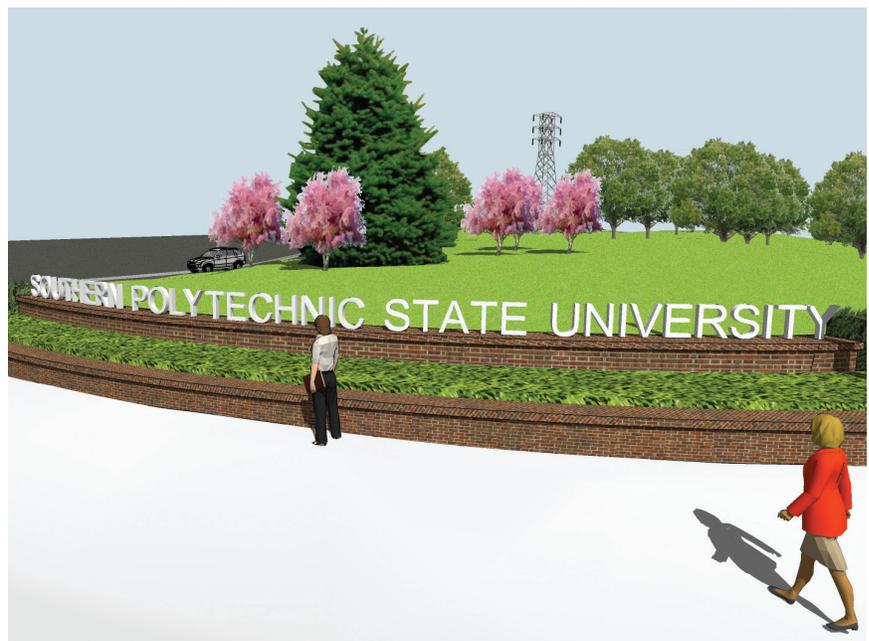
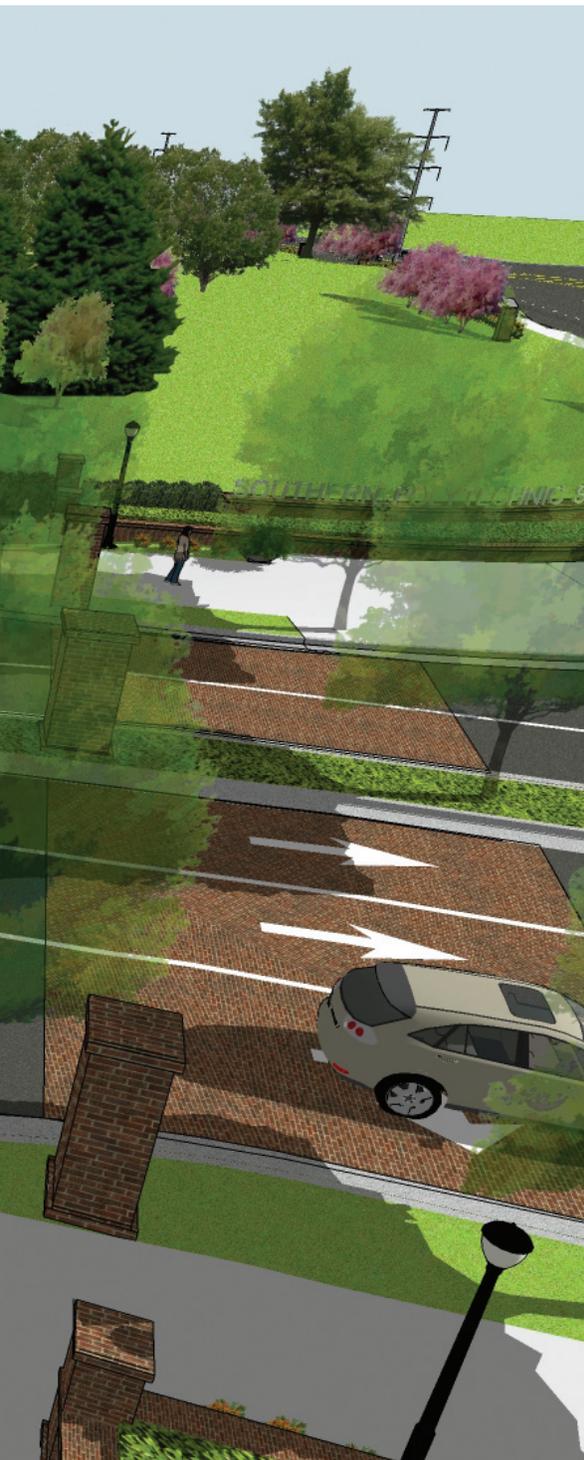


How many times have you heard someone give directions by way of the Big Chicken? Well, soon you may hear “go to the Southern Polytechnic entrance and turn right.” While the main campus entrance was moved to line up with a cross street, providing the opportunity for a traffic signal and improved safety, the entrance landscaping and signage were not addressed until now.

SPSU has partnered with Ray Strychalski, ASLA, LEED AP, his team from Kimley-Horn and Associates Inc., and signage expert Sarah Huie Coleman of Huie Design to redesign both entrances along South Marietta Parkway, as well as the street frontage between them. The landscape plans were developed in sync with the university’s transportation and facilities master plans and include design concepts with broad campus representation.

The design of the entrance serves as a transition from the City of Marietta’s fast-paced roads into the collegiate pedestrian-oriented campus of SPSU, and includes the following components: a primary large signage wall, a smaller planter/seating wall, a 10-foot pedestrian sidewalk, and pedestrian and vehicular portals (brick columns) to serve as a gateway.

“The scale of the entrance responds well to the vast openness of South Marietta Parkway and provides an opportunity for drivers to adjust to slower



speed limits and more pedestrians. The plan makes the best use of existing conditions of the site that will help reduce cost and maximize visibility,” explained Jim Cooper, executive director of Marketing and Sustainability Initiatives.

The large three-dimensional letters that will depict the campus name will be anchored to the primary signage wall and will help convey the overall main entrance as “collegiate” in general appearance, but with a “contemporary flair.”

Evergreen shrubs have been used to create a green hedge along with brick columns to serve as a campus border. This innovative approach was chosen to create the feeling of something more open and softer than a fence or barrier, but maintaining a sense of boundary.

The design team includes transportation engineers, landscape architects, signage experts, and makes use of on-campus expertise. SPSU’s own Dr. Julie Newell, chair of the Social and International Studies department, provided guidance on the use of native plants. Chris Welty, assistant professor of architecture, provided additional design direction.

Implementation of the new plan will be phased in as funds become available. Ultimately, all of SPSU’s frontage along South Marietta Parkway will have improved and sustainable landscaping, eye-catching signage, and a safer and more visible entrance to campus.

Completion of the front entrance is expected by Spring 2012. Visit the SPSU web site at www.spsu.edu for more updates regarding this project.

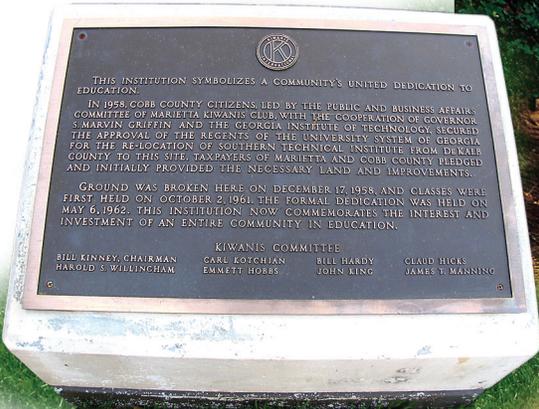


A historical fixture in Cobb County – 50 years and counting

“The institution now commemorates the interest and investment of an entire community in education.”

—from the commemorative plaque outside the Administration Building at Southern Polytechnic State University

In 1958, ground was broken to allow a small two-year college to move from DeKalb County to Cobb County. Decades later, Southern Polytechnic State University has evolved, expanding from its 93-acre parcel of land to a four-year institution on 198 acres that boasts 5,500 students, more than 30 academic programs...and a history-making president at the helm, according to the Atlanta Regional Council for Higher Education.



Conflicting stories exist about the once-controversial move to Cobb County, but one man—Bill Kinney, associate editor for the Marietta Daily Journal—was there at the beginning. He served as the chairman of the Public and Business Affairs Committee of the Marietta Kiwanis Club, the group behind the move. Kinney said a mix of steadfastness and politics are the reason for the university’s present—and permanent—location.

The school was established in 1948 as the Technical Institute in Chamblee, DeKalb County. The name was changed to Southern Technical Institute in 1949. According to news reports, Gov. Marvin Griffin advocated the establishment of a junior college system in Georgia while addressing editors at the annual convention of the Georgia Press Association in 1957. John King, Griffin’s aide—and a Kiwanis Club member—took it a step further by suggesting Marietta get the first junior college under the plan.

King took the proposal to the committee, who got the ball rolling by seeking a permanent building for the University of Georgia’s Off-Campus Center in Marietta. The center was overflowing with students. By securing a permanent building and with the expectation that enrollment would continue to increase, they would move toward having the building converted into a junior college.

“[The move] got involved in politics, and Marvin Griffin, who was running for governor, said if you will support me, we’ll move [the Chamblee school] out to Marietta,” Kinney said. “The Kiwanis Club’s job was to get the land.” They were able to arrange a deal with the county to secure land on Clay Street.

The move was not met without setbacks. DeKalb County might have been the biggest source of discord. After learning about the proposed move, officials approached the University System of Georgia’s Board of Regents with a report emphasizing why the college should not move.

Kinney, fellow Kiwanis Club member state Rep. Harold Willingham, and Cobb County Commissioner Herbert McCollum presented their own report to the board, citing the benefits the move would have on Cobb County. Impressed with these findings, the board was on track to approve the move, but pleading from DeKalb officials resulted in a month’s delay.

During that time, Kiwanis Club members worked behind the scenes and approached Gov. Griffin directly about appropriating \$2 million to Cobb County for the school, he agreed.

On May 22, 1958, the largest mass meeting of governmental officials and boards in Cobb’s history took place. A seven-page report written by Kinney, Willingham, and McCollum was the result of the meeting, which outlined what each governmental body would contribute to the program. On June 5, the plan was accepted.

“Politicians didn’t lie,” Kinney said. “[Griffin] did everything he said, and the Kiwanis Club led the move to get the land and carry out its part.”

The confirmation of the school’s

move was lauded as the “greatest cooperative effort by city and county officials since similar teamwork by Rip Blair, Jimmie Carmichael, and George McMillan brought the Bell Bomber Plant to Marietta in 1942,” according to news reports.

Ground was broken on Dec. 17, 1958. The names of the committee members can be seen on a plaque outside of the Administration Building at SPSU. In addition to



Kinney and Willingham, they are: Carl Kotchian, Emmett Hobbs, Bill Hardy, John King, Claud Hicks, and James T. Manning.

The first classes at the newly located school were held Oct. 2, 1961. Kinney said Marietta Kiwanis Club is still active with the university through service and scholarships.

Many in the Cobb community respect and appreciate SPSU’s impact to the area, academically and economically. Kinney said Cobb had a total lack of higher education prior to the historical move. He said the biggest impact the university has provided is “turning out hundreds of engineers at a time when we really

need engineers and other countries are just putting the emphasis on engineering education.”

Dr. Richard Bennett, associate professor of social and international studies, who has been at SPSU since 1992, said the university’s presence is important because it was the first University System of Georgia institution to be located in Cobb.

“Students from around the world

engineering/technical industry.

“[The year] 2008 was a milestone year for SPSU, where we passed the milestone of 1,000 women studying engineering, technology, science, and other related areas at SPSU.”

He added that the university is no. 4 in the country in terms of degrees awarded to women in engineering technology, according to the American Society for Engineering Education.

with a competitive edge when it comes to work-force development opportunities. SPSU will continue to enhance Cobb through its educational components, which will, in turn, attract corporations looking to come to the county,” he said.

“SPSU will also continue to be a key strategic partner with the Chamber and Cobb County as we enhance our economic development efforts both domestically and internationally,” Mathis added.

The university is also a major employer in the county, according to Dr. Szafran. “The graduates we produce are at the forefront of entrepreneurship and technical leadership in companies throughout the county,” he said. “In many cases, our graduates have started their own companies that provide employment and services and are part of the tax base.”

He added, “Having a technological university helps the county attract technological companies who want to locate near a well-educated and trained work force.”

Hoyt McClure—who was selected as acting director of the school in 1961—said the school would bring \$5.2 million to Cobb by 1970. According to the Board of Regents, SPSU had a \$134 million impact on the area, in 2010 alone.

Cobb County Commissioner Helen Goreham said the university will continue to enhance the county.

“SPSU is an asset that will only increase in value to Cobb County. As our population grows, the demand for a high quality education and a highly educated work force will only increase,” she said. “SPSU’s expanding degree programs and fields of study will help meet our community and national needs far into the future.”



are interested in our education, both because it addresses the applied side of engineering, technology, and related areas, but also because we are a smaller school where they are more than just a number,” he said. “As we continue to add programs and refine the focus of existing programs, I think we will have an even more significant impact both on our own university population, the county, and the state.”

One such impact is the influence of women in engineering and other technical fields. Dr. Zvi Szafran, SPSU’s vice president for Academic Affairs, said the university has had a historical impact on women in the

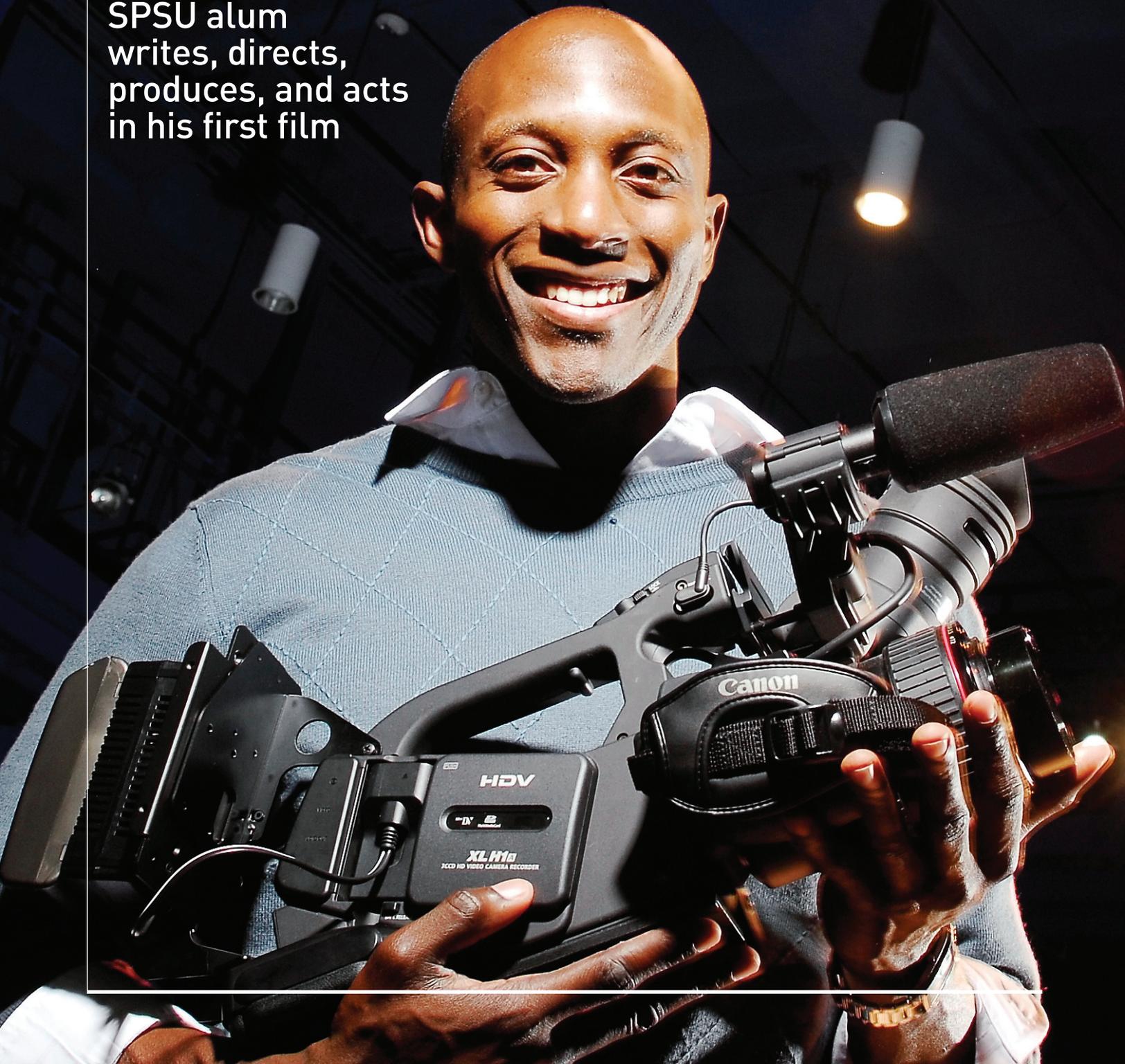
“Many of our female graduates have gone on to key positions in industry at some of the major companies in Georgia,” he said.

The location of a technology-focused college in the heart of Marietta is a boon to local companies. Brooks Mathis, vice president of Economic Development at the Cobb Chamber of Commerce, said the university provides many advantages for the county.

“Since 1961, SPSU has assisted in the attraction of new companies to the Cobb area by providing essential educational resources. These resources provide our community

Lights, camera, action!

SPSU alum
writes, directs,
produces, and acts
in his first film



Since completing his formal education, a recent graduate of SPSU has given full rein to his lifelong interest in being an entertainer by writing, directing, acting in, and producing an independent full-length feature film that was shot in Atlanta.

Niyi “Nee” Oni’s, ‘08, romantic drama, “Four Fifteen,” is still in post-production, but already it has captured an award for Best Trailer from the American International Film Festival.

Buoyed by the near-unanimous positive reaction with which his story of three childhood friends finding their way as young adults has been received, Oni is thoroughly in love with film making and plans to submit his work to the Cannes Film Festival and a variety of other festivals later this year.

“I know I’ve put together something special, and it’s up to me to bring this film’s special qualities out so that others fully appreciate them,” said the handsome and charismatic actor/model. “I have tested the film on many different audiences, gotten lots of positive

feedback, and made some key changes. It’s a long and fascinating process to bring a film from a rough copy to a polished finished piece.”

According to director George Lucas, “having a really good understanding of history, literature, psychology, and the sciences is very, very important to actually being able to make movies,” and Oni is in complete agreement.

“My degree in international studies from Southern Polytechnic State University continues to be an invaluable resource as I engage in the field of television and film,” said Oni, whose family is from Nigeria. “The entertainment industry includes an ever-expanding array of cultures, ethnicities, races, and religions. Having heavily focused on these subjects during my course of study at SPSU, I’m better equipped to capture and depict the stories of multiple societies with factual clarity.”

Oni noted that he uses what he learned in school “on a daily basis”—in business meetings, setting

up a shoot in an ethnic restaurant, or directing actors from a variety of backgrounds. He’s also made full use of the network of other SPSU alums he met while in school to research and market “Four Fifteen.” Contact with one of those fellow alums recently led to Oni being interviewed about the film by a news agency in Brazil.

The child of two medical professionals, Oni said the value of education was instilled in him at a very early age. He enjoyed writing and had a mind for business (offering special deals on the lemonade and candy he sold), but he also loved entertaining family and friends with impressions of entertainers Michael Jackson, Eddie Murphy, and Jim Carrey.

He got involved in theater in middle and high schools and was accepted to the Academy of Musical & Dramatic Arts in New York, but ultimately chose to stay relatively close to home by attending Piedmont College in Demorest, Ga. After playing the lead role in a stage production there, Oni got an agent

and began getting part-time work as an actor and model.

While at Piedmont College, Oni heard that SPSU was offering a degree in international studies and was deeply intrigued with the idea of “studying other cultures and learning about the rest of the world.” He visited the campus, loved the multicultural atmosphere, and transferred in for his last two years of college.

He continued to take acting jobs here and there, such as commercials and work as an extra, but admitted, “It was a lot to juggle on top of course work.” It wasn’t until he earned his degree from SPSU in 2008 that he fully committed himself to his love of the arts.

“After graduation, it was 100 percent arts,” he said. “I threw myself into it, networking and grabbing almost any acting jobs I could get. I did commercials for clients such as AT&T, the U.S. Army, Georgia Lottery, IBM, Gillette and even some local theater. And, when I wasn’t working as an actor, I did modeling, which was a means to an end. I landed jobs with national advertisers, including Zappos, Guess, Hilfiger, New Balance, and Nike.”

Oni is very inquisitive, and in addition to acting or modeling for a client, he spent a lot of time asking the crew questions, observing, and picking up valuable information on lighting, staging, and direction.

All the while, he said, “I had a story in my head—a screenplay” that he began writing in 2009 and finished a year later. It took three months to clean it up, polish it, and get a variety of people to read over and react to the screenplay.

After forming a production company (Nian Productions), hiring



“We filmed ‘Four Fifteen’ in 10 days – 10 consecutive 13-hour days, 139 hours. We were very disciplined, but oh, those were long days!”

—Niyi (Nee) Oni '08

actors (both of the leads are former Atlantans and Oni, who is the third principal actor in the film, still lives here), and a choreographer/director of photography (who is a graduate of the Art Institute of Atlanta), Oni was ready to start filming.

“We filmed ‘Four Fifteen’ in 10 days—10 consecutive 13-hour days, 139 hours,” he said with a smile that was also a grimace. “We were very disciplined, but, oh, those were long days!”

Since then, Oni has been polishing his theatrical gem with added or enhanced scenes (one or two of them filmed at SPSU) and honing his networking and marketing skills.

He is planning to tour “Four Fifteen” around to a number of southeastern U.S. colleges to collect valuable testimonials before sending

it off to fistfuls of film festivals, where it can generate the kind of buzz that could attract a major studio to take it into theaters.

In addition to Cannes, Oni hopes to submit “Four Fifteen” for screening at the Sundance, Tribeca (N.Y.), and Toronto international film festivals as well as similar events in Chicago, Los Angeles, and Miami.

You might think that a creative person would have a difficult time switching hats to cut deals in the name of promoting and selling a film, but Oni relished the work.

“I love intertwining business with the arts,” he said. “It’s not a problem for me. I enjoy enlisting others in sharing my vision and showing them that this film is not just an idea, but something concrete that really moves people.”

Engineering Technology Center offers transparency and open spaces

At the beginning of 2011, Southern Polytechnic State University opened the doors of a stylish new Engineering Technology Center (ETC) that brings together many of the University's engineering and engineering technology students—a third of the institution's total student population—

in one well-equipped facility.

ETC houses SPSU's mechatronics engineering program—the only such program in Georgia offered by a public university—in addition to programs in electrical, mechanical, and systems engineering based in the Division of Engineering (DoE) and

programs in electrical, computer, telecommunications, and mechanical engineering technology based in the university's School of Engineering Technology & Management (ETM). The new facility is being used by 1,800 of the university's 5,500 students.



Dr. Thomas Currin
Division of Engineering

Dr. Jeff Ray
School of Engineering Technology
and Management

The three-story, 123,000-square-foot building holds:

- classrooms,
- faculty offices,
- spaces that facilitate team meetings and collaboration between programs,
- an auditorium,
- 37 hands-on applied teaching labs, (including a mechatronics engineering lab, an automotive lab, a computer-integrated manufacturing lab, an energy/HVAC lab, a strength-of-materials lab, and numerous electrical engineering analysis and design labs).

The campus' newest facility also sports a striking light show in the glassed-in main lobby and includes sustainable characteristics required by the U.S. Green Building Council, as do other recent additions to the SPSU campus.

"With our new dining hall, Hornet Village, and ETC, we're seeing a shift in the center of the campus," said ETM Dean Jeff Ray about the cluster of new facilities on the campus' west side.

ETC provides ample space and facilities to address emerging technologies within SPSU's engineering/engineering technology programs, such as applications of nanotechnology, biomedical and biotechnology; and energy and sustainable systems. It also includes provisions for future technology infrastructure needs and a roof that will accommodate solar, wind, and other related energy experiments.

"Aging facilities on campus and the explosive growth that the university has experienced over the last four or five years really necessitated the addition of more instructional space," said Dean Ray.

SPSU has one of the largest engineering enrollments in Georgia and is growing rapidly. But, until now, the university's engineering/engineering technology programs have been housed in 1960s-style buildings that are no longer adequate or capable of meeting the needs of technology-focused programs.

Separately, the mechanical engineering technology program was located in some of the oldest buildings on campus. In 2009, SPSU added very popular evening programs in electrical

The campus' newest facility also sports a striking light show in the glassed-in main lobby and includes all sustainable characteristics required by the U.S. Green Building Council.

engineering, mechanical engineering, and civil engineering and enrollment in these programs is growing 10 percent each year, making the need to expand and upgrade equipment and technology even more critical.

Dr. Thomas Currin, associate dean of Engineering, noted that it was also important to bring engineering and engineering technology students and faculty together under one roof so that they could collaborate, just as industry professionals in these areas do.

"The better we can prepare students for entering the job market, the better job we're doing," he pointed out.

"We've gotten so many good comments from SPSU faculty, staff, and students since the building opened," noted Dean Ray. "We can tell that the students like it because

they're camped out here at all hours of the day and night. They're really taking advantage of the study spaces and the project rooms."

And although there have been "the usual roadblocks" experienced with new construction as the building's new occupants have settled in, Dean Ray said that all of the feedback sought



from the end-users before and during construction is really paying off.

“The labs are really taking shape now, and we are really pleased with the collaboration and interaction that’s taking place as a result of the openness that’s been created by the windows looking into each lab and classroom. People can see the learning

taking place.”

In addition to serving the needs of the 1,800 students currently using the facility, ETC will enable SPSU to expand the number of online and hybrid courses for regional partnerships with the Technical College System of Georgia. The building will also serve as a resource

for the Atlanta metropolitan area to educate K-12 students about the career opportunities available in science, technology, engineering, and mathematics (STEM) fields.

The building was designed by architects Cooper Carry and built by DPR Construction with \$30.8 million in state funds.



“It was also important to bring engineering and engineering technology students and faculty together under one roof so that they could collaborate, just as industry professionals in these areas do.”

**Dr. Thomas Currin,
associate dean of Engineering**

Evening engineering programs MEETING HIGH DEMAND

Evening engineering degrees at Southern Polytechnic State University are offering night owls and non-traditional students more educational options and more scheduling flexibility than ever before.

"I'm excited to be part of the creation of these and the other engineering programs at SPSU and look forward to their continued success," said Dr. Thomas Currin, associate dean of Engineering. "In these tough economic times, it is especially gratifying to create opportunities for people to pursue their dreams and enhance their quality of life. All Georgians benefit when that happens."

The new evening degree programs, which were approved by the University System of Georgia's Board of Regents, began in August 2009 "in response to the demand from industry and the public to provide engineering programs to folks who could not attend full-time day programs at other schools," Dr. Currin said.

"We had recently started engineering programs in construction engineering, mechatronics engineering, and systems engineering so the civil engineering, mechanical engineering, and electrical engineering evening programs are a natural fit," he said, noting that the new evening degrees "historically have been the most popular engineering

programs [in the country]. The three evening programs use many of the same resources used by the other engineering programs."

SPSU is the only university in Georgia to offer these programs in the evening.

According to a National Science Board report, the number of jobs requiring science and engineering education continues to increase, but the number of graduates in these fields is steadily decreasing.

"The addition of these degrees to the array of offerings at SPSU directly addresses Georgia's need for professionals trained in areas of engineering," said Dr. Zvi Szafran, vice president for Academic Affairs at SPSU.

The new evening programs are being phased in over a four-year period, Dr. Currin said. Freshmen-level courses began in Fall 2009, and sophomore-level courses started in Fall 2010. Classes on the junior level will begin in Fall 2011, followed by senior-level classes in Fall 2012.

All programs will be fully implemented by the 2012 academic year, and the first graduates are expected in 2013.

"This allows the programs to grow with fiscal responsibility and only spending money when needed," Dr. Currin said. "What this means is that we are able to be extremely efficient with our finances and are generating revenues to support the programs as they grow."

"The "downside" to phasing in the courses is students who want to transfer into one of the evening programs at the junior level must wait until Fall 2011 when the full complement of junior-level courses in each program will be available," he explained.

Morgan Howard, 29, an electrical engineering major, said evening classes are ideal for non-traditional engineering students.

"Without night classes, people who need to have full-time jobs can't get the classes they need," he said. "In my particular situation, it's working out great because I'm a full-time student, and I can fill up my schedule."

The downtown Atlanta resident, who worked as an electrical contractor for seven years before enrolling at SPSU, is carrying a course load of 17 credits—all engineering classes—this

semester, including one class that ends late in the evening two nights a week.

“I have large breaks in between classes, and with 3000- and 4000-level classes, it’s nice to actually have that time to work on whatever you need to prepare for,” Howard said, adding another benefit of evening classes is “you avoid all the traffic when you’re in school that late. I [schedule classes that way] preemptively so later in the semester when I have several tests in the same week, I have ample time worked into my schedule.”

Dr. Currin said the evening engineering programs have been “extremely popular,” with more than 400 students enrolling in the three programs during the first 18 months.

“My expectation is that SPSU’s enrollment in the evening engineering programs will exceed 1,000 students when they are fully phased-in in 2012,” he said, noting “the distribution between the three programs is about equal at this point and has a mix of students that includes a high percentage of historically underserved populations.”

He added that it’s still too early to tell if the evening programs are attracting students from across the state or primarily the metro-Atlanta area.

Howard, who hopes to graduate in 2013, said he took his first evening engineering class last summer and plans to take more in the future.

“It’s somewhat mandatory because in order to get all the classes I need, it seems like at least one of my classes [each semester] will be in the evening,” he said. “It’s somewhat inevitable.”

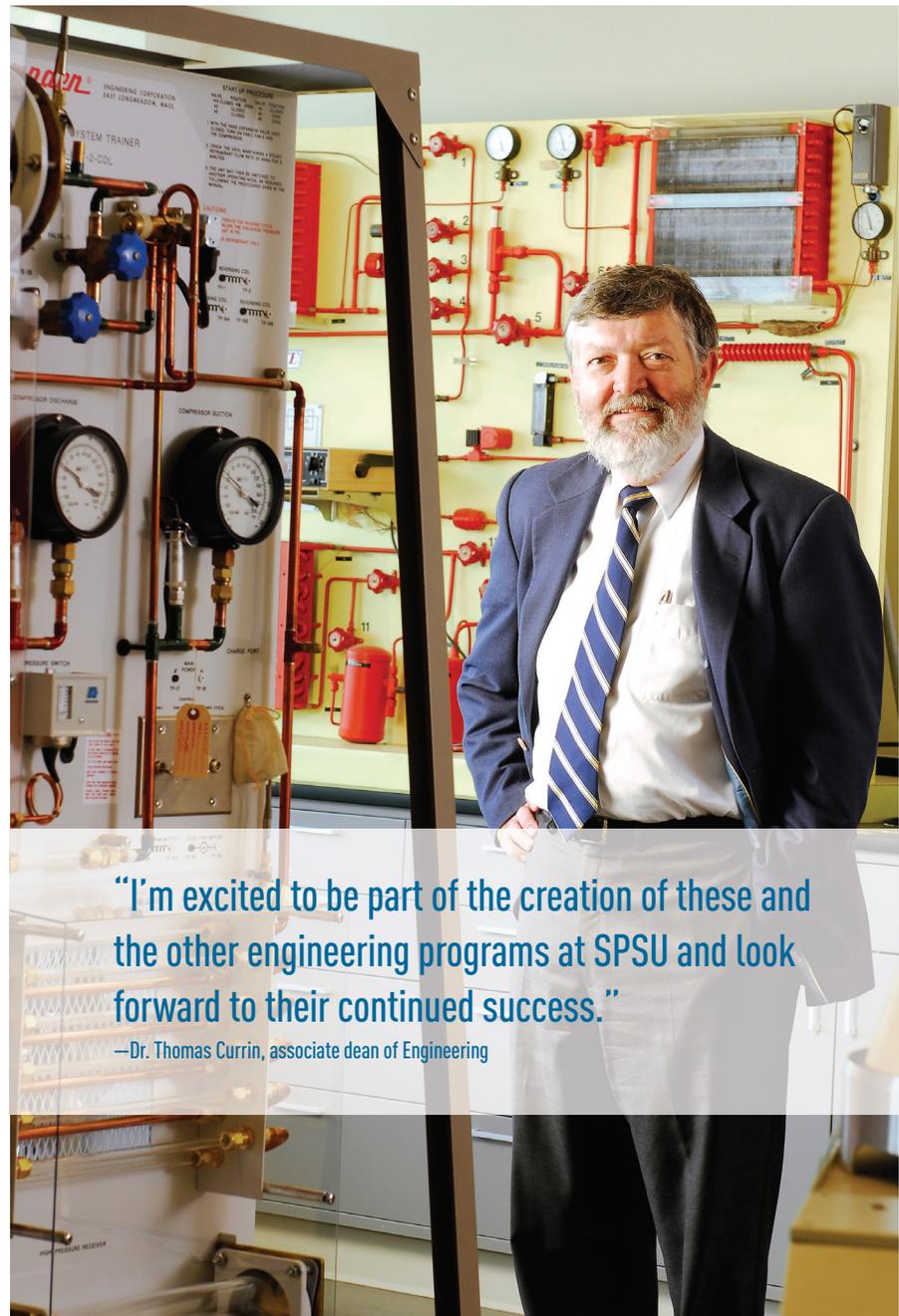
He also said he thinks the evening engineering programs can be “only beneficial” to the university.

“Every way I look at it, I can’t see any negative effect,” Howard added.

SPSU now offers seven undergraduate engineering degree programs—software, construction, mechatronics, systems, civil, electrical, and mechanical—as well as graduate degrees in software engineering and systems engineering.

More than 900 students are enrolled in the programs, making SPSU the second-largest engineering school in Georgia, in terms of enrollment.

For more information on Southern Polytechnic State University’s Division of Engineering, visit www.spsu.edu/engineering.



“I’m excited to be part of the creation of these and the other engineering programs at SPSU and look forward to their continued success.”

—Dr. Thomas Currin, associate dean of Engineering

0 PIONEERS!

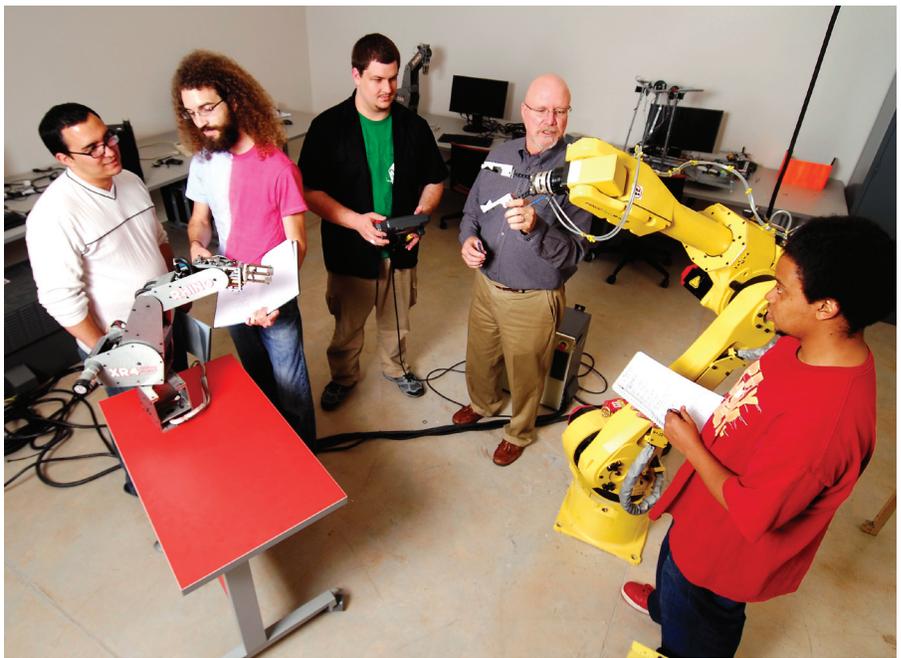
First mechatronics engineering grads meet the program's challenges

This spring Southern Polytechnic State University is awarding its first undergraduate degrees in mechatronics engineering—a unique program of study melding mechanical engineering, electrical engineering, and computer controls—to a cohort of 13 students who have found the curriculum to be challenging, but rewarding.

What makes the mechatronics curriculum so unique is that it is extremely interdisciplinary. The accepted definition of mechatronics from the Institute of Electrical and Electronic Engineers (IEEE), the world's largest professional association for the advancement of technology, is: The synergistic integration of mechanical engineering with electronics and intelligent computer control in the design and manufacturing of industrial products and processes.

Christopher Somers, one of the graduating seniors, said, "It's awesome how we've gotten to help shape the program as the first class of mechatronics students."

"It's been a long time coming and a lot of effort," agreed his classmate Jonathan Bruce.



SPSU's first set of mechatronics engineering graduates include (from left to right) Ronald Rodriguez, Jonathan Bruce, Christopher Somers, and Justin Traille. Program director Glenn Allen (center) couldn't be prouder of his students and their accomplishments.

"I've enjoyed my time here at SPSU, and contributing to the program, I now feel prepared to move into my career," added Ronald Rodriguez, who was recently selected as the state's Engineering Student of the Year by the Georgia chapter of the National Society of Professional Engineers.

"This experience has taught us how to quickly switch gears," said Bruce. "You get the opportunity to be

immersed in electrical engineering, then programming, and from there mechanical engineering."

Program director Glenn Allen, along with a few mechanical and electrical faculty members, started writing the proposal to initiate a degree in mechatronics engineering in 1998 and finally saw it approved by the Board of Regents in late 2006. Today, he noted, SPSU has about

230 mechatronics students (a number expected to top 250 in Fall 2011) and is one of the largest programs in the United States.

Forty-two undergraduate mechatronics engineering degree programs worldwide are recognized by the Accreditation Board for Engineering and Technology (ABET) and the Engineering Accrediting Commission, but only two of them are offered by U.S. institutions. The University of California at Chico State has capped its 14-year-old program

you didn't feel you were going through it alone."

Somers agreed, "We have had our own buddy system."

Over the past four years, Prof. Allen and other faculty members have consulted the first class of mechatronics students extensively for feedback on the program and taken many of the students' suggestions to heart.

"Prof. Allen has been great about listening to our observations and making changes to make the program

education and internships," said Prof. Allen.

Somers, Bruce, and Rodriguez helped to found the SPSU chapter of the International Society of Automation (ISA), and Rodriguez is a past president, secretary, and treasurer. The ISA is one of the few student chapters in the southeast and largely made up of mechatronics students and a mix of mechanical/electrical engineering students.

So what's next for these intrepid pioneers?

"I'm proud to say that all 13 of our graduating seniors have been involved in sharing their gifts with others throughout their years here, whether it's reaching out to K-12 students or working with companies specializing in automation through cooperative education and internships."

— Prof. Glen Allen, program director of Mechatronics Engineering

at approximately 140 students, while a two-year-old program run by the University of North Carolina at Asheville and North Carolina State University has about 50 students.

But SPSU and a handful of other mechatronics programs around the country are not yet accredited because ABET doesn't consider a program for accreditation until it has graduates.

SPSU mechatronics program stresses teamwork. Prof. Allen said, "Students develop strong team skills in order to solve complex problems that cross disciplinary boundaries. They move through the course work of the program together, so they get to know each other quite well."

That's made all the difference for the 13 graduates.

"We've definitely bonded as a group," said Bruce. "There's high morale, and we give each other lots of encouragement. With this core group,

better," said Somers. "He and our other professors have really taken a lot of our advice, which is awesome."

Prof. Allen has mechatronics students involved in many of the outreach activities in which the university is engaged, including the Georgia BEST Robotics competition for middle and high school students, summer camps offered to elementary school students, and the DragonCon robotics camp. They also have opportunities to work on undergraduate research projects for the Mechatronics Engineering Research and Education Center, which develops partnerships with industry.

"I'm proud to say that all 13 of our graduating seniors have been involved in sharing their gifts with others throughout their years here, whether it's reaching out to K-12 students or working with companies specializing in automation through cooperative

Somers hopes to spend a couple of years working in industry, then earn a master's degree in computer science followed by a doctorate in cybernetics, before working with artificial organs. Bruce has been accepted for graduate studies at the University of California, Santa Cruz, and is interested in human robotic assistance that is used in physical therapy. Rodriguez is planning either to get a job in industrial automation or to study robotics in graduate school. He applied to several schools, including Carnegie Mellon University, where he was the only mechatronics engineering student in the United States selected to serve as a Robotics Institute Summer Scholar in 2010.

"These are outstanding students. We're extremely proud of them," Prof. Allen concluded.

For more information on SPSU's Mechatronics Engineering Program, visit <http://mechatronics.spsu.edu>.

BEATING THE ODDS

One student shares his incredible and heart-wrenching story of success against all odds

On the surface, Caesar Gonzales seems like any other Southern Polytechnic State University student—working full-time while going to school to earn a mechanical engineering technology degree. But once you get to know him, you find there are many more layers to his story.

Gonzales is the author of the book, “Beating the Odds: An Autobiographical Rags to Racing Story.” He is a professional motorcycle racer, mechanic, and owner of the shop, Highside Motorsports, in Lithia Springs, Ga. He is also an activist for child-abuse awareness, having experienced it firsthand.

Born in Spanish Harlem and raised in Long Island, N.Y., Gonzales was subjected to severe beatings and starvation that caused him, at the age of 13, to stand only 3 feet 9 inches tall and to weigh just 45 pounds.

For him, school and reading served as escapes from the abuse at home. “I would do anything to be transported out of that hell,” he said. “Through books, I could go anywhere.”

In fifth grade, he read a magazine article about a motorcycle racing icon, Kenny Roberts, an American racer in the predominantly European sport. To Gonzales, Roberts was “everything I would have loved to have been”—very

unconventional, temperamental, aggressive, and focused. This one article sparked a lifelong interest in motorcycle racing.

That same year, he was taken out of his home by Child Protective Services and was placed in a variety of foster homes and boys’ homes. Suddenly, he had to unlearn everything that had been learned during his abuse. He expected beatings, but instead his foster parent just wanted to sit down and talk. Through it all, that one article stuck with him and helped him through.

In 2007 when he was 38 and after years of trying, Gonzales found the time and the money to build a bike and finance his way into the racing world.

“Out of 330 million Americans, 155 people have an American Motorcyclist Association license. And I’m one of them,” he revealed.

World champions walk up to him like they’re old friends, and he is still amazed that racers, who seem like royalty, see him as one of their own.

After breaking his shoulder blade in a wreck in February 2007, the doctor noticed many old breaks—untreated products of his childhood abuse. The doctor recommended that he tell his story, but Gonzales wasn’t sure. Shortly

after, a young girl by the name of Joella Reaves died in Henry County, Georgia, from child abuse in a situation that was very similar to his own.

“Someone has to speak for those kids who can no longer speak,” he explained his decision to write his story.

He hopes the book will inspire victims of child abuse to go after their own dreams. He also wanted to bring awareness to child abuse, not only that it is prevalent, but that its survivors are stereotyped, alienated, and persecuted before they are helped.

Recently, Gonzales returned to the boys’ home he had stayed at and learned that the reason he never received the counseling he needed when he was a youth was that the state of New York wouldn’t pay for it. He knew he had to bring attention to this issue.

“Intervention urgently needs to include therapy for the victims, which would be far less a financial burden to society than dealing with the very same victims later as inmates in a penitentiary or patients in psychiatric wards,” he explained. “The victims of child abuse live with the effects the rest of their lives. So few receive the intervention necessary to unlearn the dysfunctional behavior patterns that impact nearly every aspect of their adult lives.”

Gonzales eventually got to meet his role model when he saw Kenny Roberts at a racing convention. He decided to walk up and tell him what an inspiration he was. Roberts replied: “You know, you look like a racer.”

That comment was the validation that Gonzales had always wanted.

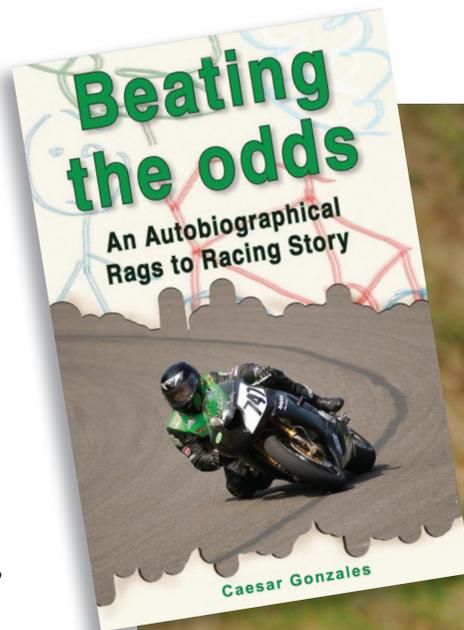
With his SPSU mechanical engineering technology degree, he simply wants to design. He said that he is intrigued by anything that is deemed difficult to do and wants to break down those barriers. For example, he is working on modifying an old design for an automobile engine that runs on water.

More than just technology, though, he wants to set an example for others like himself.

“It is tough to make your way in today’s society with no family support structure and the stigma of being a survivor of child abuse, but it is not impossible,” he said. “It is possible to get past all the symbolic gestures, empty promises, false hopes, negative influences, stereotypes, and societal prejudices while unlearning the behavior patterns associated with surviving child abuse.”

Gonzales hopes to be a role model for how people should approach life, especially for kids who have also been abused and left in the protective services system. Whether someone wants to race motorcycles or get a college degree, he wants everyone to know that they can survive and can go on to do great things.

Gonzales is a true “Rags to Racing” story, and it is one that he is trying to get everyone to hear.



Gonzales hopes to be a role model for how people should approach life, especially for kids who have also been abused and left in the protective services system.



Architecture students excited by new space

Opening of new Design II building marks milestone for program

Many students enrolled in Southern Polytechnic State University's architecture program have a new place to call home.

The University's Design II building opened at the beginning of 2011, providing additional instructional space and architectural experiences for first- and second-year students.

At 14,500 square feet, the building increases SPSU's Design facility by 50 percent. The addition features a 286-seat tiered lecture hall and six large studio spaces, each of which provides instructional space for 16 second-year students.

"From my first impression walking in, it looked like it would be a good place to learn," said second-year student Brad Wicka, who had eagerly anticipated the building's opening.

The new building is connected by an elevator and

bridge to the original building, now referred to as Design I, which is dedicated to first-year students, who will attend classes in the new building the following year.

"We've provided a facility that the first-year students aspire to move into, so they work a little harder," said Dr. Wilson Barnes, dean of the School of Architecture, Civil Engineering Technology, and Construction.

Having the first-year students just next door "gives us a chance to not only exchange ideas and thoughts but to help them and advise them," said



Second year architecture students make use of the bright and open space of the new Design II building that opened at SPSU in January 2011.

Andy Valencia, a second-year student.

Dr. Barnes said that while the new building offers separate studio spaces, divided by partial walls, it also offers a sense of community.

“It incorporates a lot of areas for social gatherings for students aside from the work spaces,” he said. “The students are very happy with it. The faculty are very happy with it. Everyone loves it.”

The new building provides students with more space to display the models they create in class, Dr. Barnes said.

“As we go through an advancing technological age, students are able to produce more products, and as you produce more products, you need more room,” he explained.

Design II also provides a little wiggle room for SPSU students, who remain in the Architecture Building, where they were previously joined by second-year students.

Dr. Barnes said the space will likely be adjusted again in the fall when the university adds a new master’s degree program for architecture students.

Design II is contributing to SPSU’s increasingly environmentally-friendly campus. The building, designed by Atlanta-based Cooper Carry, includes low-flow plumbing fixtures, high-efficiency rooftop HVAC units, and increased natural light.

The new building encourages further energy conservation by students. They are able to bike to Design II, store their bicycles in a secure storage area, and use its changing area and showers to freshen up.

Architecture students may also appreciate the design elements of their new building, such as its use of natural light along with a combination of



Students have their own individual work stations and enough additional space to work together on group projects.

open areas and private work spaces.

“We want to use the building to help them understand as many characteristics of design and construction as we can,” Dr. Barnes said. “You try to highlight certain elements of construction that will draw students’ attention and make them think of those things.”

“They get exposed to these things over the course of their education, but when there are physical reminders over there, it reinforces it in their brains,” he said. “Comfort isn’t just the chair you sit in. It’s the positioning to your work task and your ability to interact with your peers and professors.”

Wicka, who worked as a draftsman prior to enrolling at SPSU, is already well aware of the building’s architectural features. “Light reflects off the polished concrete floor,” he said. “It lights up the ceiling in the space. It’s certainly a brighter and more inviting environment than what we had before.”

He also appreciates other aspects of the building’s design, which include

visible reinforcements on the retaining wall in its northeast corner.

“In terms of stimulating your intellectual interest, the building certainly accomplishes that,” he said. “It’s nice. It really is.”

Design II’s opening followed nearly six years of planning. Its \$4 million price tag was funded by the state.

“It’s not the kind of thing that happens overnight,” Dr. Barnes said. “There was a limit to what we could get money-wise. So we got as much as we could for the money.”

“We think it’s a very nice building, and we hope the university will benefit by having [similar facilities in other departments] in the future,” he said.

Valencia said he’s only heard positive remarks about Design II.

“I think most of the students have taken ownership of the building. They all take care of it and use it properly,” he said. “Sometimes we like to brag to students from other years, but it’s all in good fun.”

The cure is in the modeling

One professor leads a project in the fight against childhood obesity

Look around and you will likely see the growing issue around us—childhood obesity.

According to the Centers for Disease Control, childhood obesity rates have more than tripled in the past 30 years, resulting in about 17 percent of Americans under 20 being obese. Obesity at this age can put a person at risk for a number of health issues, such as heart disease, type 2 diabetes, stroke, various types of cancer, and osteoarthritis.

Dr. Christina Scherrer, a professor in the Industrial Engineering Technology department at Southern Polytechnic State University, has been using funding from the University System of Georgia's Board of Regents, and the National Science Foundation, to help lower the risks and the rate of childhood obesity in Georgia.

Dr. Scherrer is using mathematical modeling to help find the most cost-effective way to fight the state's childhood obesity problem. The goal is to determine a program, or a combination of programs, to implement that will be low cost, help obese children lose weight, and keep children who are at a healthy weight from gaining.

"The solution will be determined by gathering data on a variety of different programs currently being

used to fight childhood obesity and applying a mathematical model to figure out the efficiency of each program. Policymakers can then make informed decisions about the most efficient portfolio of programs to implement with limited budgets," she explained.



A challenge is that she must fit the style of the modeling to the situation. The final version of any public health policy model will be based on the demographics of an area. This means that every zip code and every

county will have different factors contributing to their own childhood obesity issues that must be accounted for. Mathematical modeling allows all of these unique factors to be studied at the same time and used to forecast the change in the prominence of childhood obesity under different combinations of programs.

Dr. Scherrer has partnered with the Georgia Health Policy Center (GHPC) at Georgia State University, which provided evidence-based research. She is splitting the \$10,000 grant from the USG with the GHPC.

She was also awarded a grant totaling almost \$175,000 from the National Science Foundation to build optimization models for public health policy. This is also funding her research in the childhood obesity project. The majority of the SPSU grant budget is used to fund an undergraduate research assistant, modeling software, and work that was completed during the summer.

Dr. Scherrer, who received her bachelor's degree, master's degree, and Ph.D. in industrial engineering from the Georgia Institute of Technology, focused her research on using industrial engineering tools to help solve public policy problems.

While she has also done research in areas such as locating domestic abuse shelters and vehicle routing

for food banks, her main focus is in public health policy. Typically, she partners with someone in a medical or public health field. They bring the subject matter expertise and she brings the modeling skills. Together, they figure out a model that will provide the best possible solution to an issue.

This project, in particular, involved using mathematical models combined with research to find the solution that will best help Georgia residents. While this final optimal solution will not be determined until the analysis portion of the project, Dr. Scherrer believes that the best outcomes will use some combination of school-based programs, such as classroom training, frequent calorie-burning, physical education sessions, parental education, after-school programs, and more nutritional school lunches.

As of now, the project is focused on the coding of the possible mathematical models. The analysis of the research and models will be completed throughout November 2011, with the final project conclusion written by the end of the year. After this, the next step will be to present the model and results to Georgia policymakers in hopes that the programs will be implemented.

The modeling software being used will allow legislators to have a “dashboard” of sorts that will allow them to see the model in action.

“On the dashboard, you can adjust different factors within school-based policies and community-based policies and watch how it affects the cost to the system and percentage of obese children,” Dr. Scherrer said. “It is a very visual representation for the lawmakers of how changing different aspects of different programs



Dr. Christina Scherrer uses computer modeling to help find solutions to health and public policy issues.

should affect the children in that demographic.”

She hopes that this project will be a springboard for the future. With the focus of the country’s First Lady, Michelle Obama, on combating childhood obesity, the epidemic is getting a lot of national attention. Dr. Scherrer and her colleagues on this project plan to apply for additional funding to expand their work and assess other aspects of the epidemic.

“With such a large problem quickly becoming a nationwide epidemic, something has to be done to turn it around,” said Dr. Scherrer.

SPSU’s vision is to blend technology with the liberal arts and sciences. Dr. Scherrer using mathematical modeling to help fix a public policy issue is fulfilling this vision and then some.

Research leads to real-world solutions

A team of Southern Polytechnic State University students, faculty, and staff members developed an oil cap mechanism that they believe has the potential to prevent future oil spills of the magnitude of the one in the Gulf of Mexico.

Assisted by members of the Marietta Fire Department, the team tested the mechanism by using a crane to repeatedly lower a small-scale prototype of the device onto a fire hose gushing water 50 feet into the air. The device used hydraulics and pneumatics to latch onto the hose nozzle.

In each test, the cap successfully stopped the flow of water within seconds. This scenario was calculated to approximate the capping of an underwater leak by a full-size device.

The oil cap designed at SPSU is significantly lighter than the one used to seal the prolonged spill at the BP Deepwater Horizon oil well in July 2010 and would attach to a leaking well differently. The device was the brainchild of civil engineering technology student Jim Baltimore, a 49-year-old who has worked in construction and on an offshore oil rig.

As BP tried repeatedly to contain the leak at the crippled Deepwater Horizon rig from April through mid-July 2010,



SPSU faculty, staff, and students collaborate on an oil cap mechanism that could someday seal deepwater wells. From left to right: Russ Hunt, Ken Fleming, Jim Baltimore, Kevin Starks and, Melanie Burwell

Baltimore came up with an idea for an oil cap that could prove more effective than the one with which BP was working.

“Working on an offshore rig is a tough and dangerous job,” Baltimore said. “The primary goal of this project has been to contribute to the safety and protection of deepwater oil rigs and the people who work on them. We’re all very happy with how the tests turned out.”

Baltimore sought to bring his idea to fruition by enlisting the help of Dr. Ruston Hunt, dean of SPSU’s Extended University, who has a background in industrial engineering technology; Dr. Ken Fleming, an assistant professor in the Mechanical Engineering Technology department (MET); and Dr. Kevin Starks, a machining/welding technician in MET.

The four men, along with Dr. Starks’ student assistant, Melanie Burwell, volunteered their time daily for four and a half months to design a 3-D model of the full-sized oil cap in a modeling program. This allowed them to calculate the stresses and required capacity of the cap, based on data released by the government and BP regarding the Gulf spill. They built a small-scale version in SPSU’s machine shop and labs. The full-sized cap is 13 feet tall and weighs

60 tons, compared to the prototype, which is 8 feet tall and weighs approximately 460 pounds.

With the exception of the cost of the actual materials used in the prototype, there were virtually no expenses involved in the effort.

In addition, the professors incorporated aspects of the project into their classroom work, involving many more students in the process.

“This has been such a great learning opportunity,” said Dr. Hunt. “That’s what Southern Polytechnic is all about—taking theory and following up with practical applications, all the way down to manufacturing issues.”

At the conclusion of the tests, Dr. Hunt said the prototype cap “worked just the way we thought it would.”

Added Dr. Starks, “Flawless!”



During a test, Kevin Starks puts the oil cap in place to begin reducing the flow of water.



Introducing SPSU’s new research foundation *Research Causes a SPARC at SPSU*

The team designing the oil-well cap has entered phase II of the project—drumming up industry interest for further testing and design work. Oh, yes, and grant money to support this work.

To aid in the procurement and management of grant money for the university’s various research projects and centers, like this one, SPSU is creating a non-profit research organization.

The Board of Regents of the University System of Georgia gave its blessing to the formation of the Southern Polytechnic Applied Research Corporation, in their February meeting.

According to Dr. Ruston Hunt, dean of SPSU’s Extended University, the 501(c) 3 corporation, to be known as SPARC, will contract with organizations and agencies wishing to establish a business relationship (in the form of grants and contracts) with SPSU’s applied research centers, which currently include:

- Biometrics Recognition Research Center
- Center for Information Security Education
- Center for Nuclear Power Generation
- eGovernment Center
- Georgia Pavement Research Center
- Supply Chain Risk Management Center
- Usability Center
- Visualization and Simulation Research Center
- Alternative Energy Innovation Center
- Center for Advanced Materials Research and Education
- Center for Applied Gaming and Media Arts
- Mechatronics Research and Education Center
- Center for Applied Geotechnical Engineering
- International Knowledge and Research Center for Green Building

Dr. Hunt said the research foundation will enhance research at the university and cooperative relations with community partners by giving the centers more flexibility in contracting and financial management.

For more information about the research foundation, visit <http://eu.spsu.edu/sparc.htm>.

Georgia's university leaders strengthen skills at Executive Leadership Institute

Two leaders at Southern Polytechnic State University have immersed themselves in an eight-month program that will enhance their management skills.

Dr. Julie Newell, department chair of Social and International Studies, and Robert Forbes, director of Procurement and Mail Services, were selected to participate in the 2010-11 Executive Leadership Institute (ELI), a 100-hour professional development program sponsored by the University System of Georgia (USG).

In its second year, ELI targets the most talented faculty and staff who want to advance into senior administration roles within a university system.

The comprehensive September-to-April program, conducted by business executives, university leaders, and members of The Leaders Lyceum — a leadership development institute, promotes mentoring relationships and exposes participants to different leadership styles through activities like job shadowing, group learning sessions, and cross-mentoring. Classes range from 60 to 70 participants.



Julie Newell, Richard Franza, and Robert Forbes are developing new leadership skills as participants in the 2010-11 Executive Leadership Institute.

Dr. Newell, in her 18th year at SPSU, said she applied for ELI because she's "always interested in opportunities to extend my current skills and develop new skills."

"I've been a department chair for five years, and I knew there were things I could learn that would let me do my job better—and probably more easily," she said. "I also know that the perspective that comes from interacting with individuals

from across the system is always very valuable to me. I've spent my entire career at SPSU, so opportunities to learn how things are done on other campuses—and why—always open up new ideas for me."

Forbes, employed by SPSU for almost eight years, said the primary reason he wanted to participate was to get a "better understanding of how to develop as a good leader."

"I have been personally affected by

being reminded that I have much to learn and that leadership is a career-long practice that I will be continually seeking to perfect over time,” he said. “ELI has reinforced my idea that one’s title does not automatically grant him or her the status of being a leader.”

Dr. Newell said she’s learned a lot about her leadership style, her strengths/weaknesses and “how I can grow from where I am.”

“But, perhaps, even more importantly, I understand much more about suiting leadership to task and challenge, about adjusting my leadership approach to seek the best outcome for the group and how that often means approaching things in ways that are not part of my ‘preferred’ style,” she said.

She’s also learned about time management, “a huge problem for me,” from her cross-mentoring group, which has been “generous” with advice and “very consistent” in monitoring her progress. The program has been a “wonderful opportunity” that has fostered Newell’s love of learning.

“I find it exciting, and I tend to see all kinds of new connections and applications even for information that didn’t seem useful at the time,” she said. “I call it ‘brain candy.’ This has been an apprenticeship at the brain-candy store. I’ll do my very best to make a good return on the investment that SPSU and the Board of Regents have chosen to make in me.”

Forbes, who probably wouldn’t have applied if SPSU President Dr. Lisa Rossbacher hadn’t encouraged him, said he discovered how to look out for “what is best for the institution and all invested parties and stakeholders.”

“Good leaders seek to lead their

institution—departments, areas, groups, etc.—in ways that will also be beneficial to other entities,” he said.

He also realized that leaders within the university system “share many of the same challenges.”

“Despite the challenges, everyone that I have met through ELI is dedicated to making USG and their respective institutions a better place,” he said.

“SPSU will have leaders who understand the importance of leading their respective areas in ways that are beneficial to the whole university.”

— Robert Forbes, director of Procurement and Mail Services

Both Dr. Newell and Forbes, who were notified of their acceptance into the program in late July 2010, agreed that their participation would be beneficial for the university.

“SPSU will have leaders who understand the importance of leading their respective areas in ways that are beneficial to the whole university,” Forbes said. “This will have a positive effect on the university, and it reinforces SPSU’s strategic goal to develop a sense of place.”

“It’s a wonderful way to allow people who already know a lot about how SPSU works—and what doesn’t always work so well—to combine that valuable understanding with the perspective and tools to facilitate solving old challenges in new ways and step up to embrace new challenges with renewed energy and enthusiasm,” Dr. Newell said.

SPSU has another connection to ELI. Dr. Richard Franza, department chair of Management and Entrepreneurship at Kennesaw State

University, shadowed Dr. Rossbacher to meet the 40-hour job-shadowing requirement.

“Everyone has to shadow somebody—a leader in the system, preferably at another institution—to see what they do, how they lead,” he said. “[Dr. Rossbacher] wasn’t on the list this year—she did it last year—so I asked Dr. [Daniel] Papp, our president, if it would be appropriate if I asked her,

and he said it would. Everything I’ve heard about her has been true. She is just fantastic.”

Dr. Franza observed Dr. Rossbacher for five eight-hour days scattered throughout the course of the program, participating in everything from executive committee meetings to a Board of Regents meeting.

“She has a lot of different groups and a lot of different people to deal with, and I’ve learned how well she can demonstrate leadership in front of different groups,” he said.

He added the time he’s spent on campus has “really opened my eyes to Southern Poly.”

“I didn’t know a lot about Southern Poly when I went down there, but I’ve learned a lot,” he said. “It’s all been very positive.”

More than 125 individuals from 36 institutions have participated in ELI. The application deadline for the 2011-12 class is May 30. For more information, visit www.usg.edu/executive_leadership_institute.

On Deck

Matt Griffin

Southern Polytechnic State University's head baseball coach, Matt Griffin, clinched his 300th win with the Runnin' Hornets during an afternoon game on Feb. 25 against St. Thomas University that ended with a grand slam in the bottom of the seventh inning.

"Reaching this win is a tribute to the great players we've had here at Southern Poly," Coach Griffin said. "Without these great players, there would be no accomplishments."

In 1998, Coach Griffin graduated from SPSU with a degree in business administration and joined the Chicago Cubs organization. He played in the Cubs minor league system for two years before returning to SPSU as assistant coach for the baseball team. Four years later, he was promoted to head coach.

Karl Staber, athletic director at SPSU, has seen Coach Griffin's passion for baseball and coaching grow over the years.

"I've known Matt since he was a sophomore at SPSU," Staber said. "I hired him as a student to officiate intramural basketball games. I've watched his career in baseball grow. Matt is hard working and very driven, and I love to see his success."

Coach Griffin recorded his first-ever win with SPSU in January 2004, his 150th win in February 2008 and his 200th win in March 2009. He averages 41 wins per season.

He is in his eighth season at SPSU, and last season led the team to the NAIA National Championship Tournament.

"The team has grown considerably on a national scale," Coach Griffin said. "In the beginning, it was quite some time before being ranked, but since then, we've reached a lot of milestones and have become nationally known."

Five players, Stephen Flake, Joe Billick, Sean Teague, Mark Doll, and Dustin Carter, have signed professional



contracts under Coach Griffin's leadership. Flake and Teague signed with the Florida Marlins, Billick with the Kansas City Royals, Doll with the Philadelphia Phillies, and Carter with the Baltimore Orioles.

Coach Griffin also recognized his assistant coaches in his journey to the 300th win. "I have a great staff," he said. "They work hard, understand the game and know what it takes to win."

Coach Gary Bohannon has been with me all eight years and understands the system that we have in place. None of this would be possible without the great group of people around me."

Staber said that part of Griffin's success in coaching at SPSU is because he graduated from the university.

"Since he is a graduate of SPSU, he understands our university and recruits the right athletes to be successful here," he said. "Matt played college baseball at Georgia State University and here at SPSU, [so] he understands the college athlete. He recognizes talent and knows how to get the most out of his players. He teaches character."

The team started the season off very well by accruing a record of 20-5, including a 10-game winning streak early on. This record shows that there is reason to believe another trek to the NAIA Championships may be coming in May.

"We're off to a good start," Coach Griffin said. "We do have a lot of talent and new faces, if we can just stay healthy and things go our way, it will definitely be a great year."

Coach Griffin also serves as SPSU's assistant athletic director. He was named 2007 and 2008 NAIA Georgia Dugout Club Coach of the Year; the 2007 Southern States Athletic Conference Baseball Coach of the Year; and 2009 Rawlings NAIA Regional Coach of the Year as well as the 2009 Diamond ABCA (American Baseball Coaches Association) Regional Coach of the Year for the NAIA.

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