Meeting Workforce Needs Across the State

August 2008

The UL System Commitment

The eight universities and 80,000 students that make up the University of Louisiana System take workforce development very seriously.

In March of this year, all eight campus presidents signed an agreement to address Louisiana’s workforce needs by targeting new graduates each year in some of the state’s critical shortage areas by 2012.

Specifically, UL System institutions will generate 2,400 additional graduates annually (from current 12,600 to 15,000) in the following areas:

- 440 in business,
- 375 in education,
- 330 in health care, and
- 115 in engineering.

Our universities have invested resources and human capital in these efforts, and this special newsletter edition, “Meeting Workforce Needs Across the State,” showcases the successful programs and business partnerships that will help us achieve our goals.

As the largest system of higher education in Louisiana, our success will have a significant impact on the state’s knowledge-based economy.

Dr. Randy Moffett
UL System President

www.ulsystem.edu
University of Louisiana System
Board of Supervisors
2008-09

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The result has been graduates who are prepared to step into the job when they emerge from the program, education experts said.

“A healthy future for Louisiana is directly dependent on an excellent work force. An excellent work force is dependent on good schools and good schools require excellent leaders. So this entire initiative is nothing short of focusing directly on enabling a promising future for Louisiana,” said UL Lafayette’s Vice President for Academic Affairs Steve Landry.

In response to Louisiana’s need for professionals in critical shortage areas, including education, the University of Louisiana at Lafayette’s College of Education faculty collaborated with local school districts to revamp the university’s graduate program for prospective principals, identify teacher leaders who would be effective at running schools, and infuse them with the knowledge and real-world experience they need to do the job.

LAFAYETTE - Gone are the days when school principals were defined by the number of keys on their key chains. Today’s school leaders are judged by their impact on student learning. Such is the focus of University of Louisiana at Lafayette’s new master’s program in Educational Leadership.

“It’s not enough to be managers of a school,” UL Lafayette education professor Nathan Roberts said. “Principals must now understand data, curriculum and high-stakes testing, the needs of the work force and the skills students will need when they get out.”

Roberts and his UL Lafayette colleagues were among a team of Louisiana professors who helped change Louisiana’s method of preparing its school leaders, an approach now heralded nationwide.

Working initially with other southern states and then with the Board of Regents and Louisiana’s Blue Ribbon Commission on Educational Excellence, UL Lafayette College of Education faculty collaborated with local school districts to revamp the university’s graduate program for prospective principals, identify teacher leaders who would be effective at running schools, and infuse them with the knowledge and real-world experience they need to do the job.

UL Lafayette Preparing a New Breed of Principal
University of Louisiana System Board, presidents, and eight universities, of which UL Lafayette is a part, have pledged to produce an additional 2,400 new graduates per year by 2012 in education, business, engineering and health care.

Governor Bobby Jindal has made strengthening Louisiana’s workforce a top priority of his administration.

“One of the goals of our redesign of the workforce development system in Louisiana is to connect the dots between market demand for employees with particular skills and the education and training institutions that can turn out graduates with those skills,” Secretary of Labor Tim Barfield said. “Once we can draw a straight line between them, we will have overcome one of the largest obstacles to economic development in our state. The eight campuses of the University of Louisiana System are an important component of that solution.”

UL Lafayette and Louisiana are now considered models of school leader preparation. The Southern Regional Education Board, which guides education policy for 16 Southern states, reported that Louisiana was the only state that improved its leadership development processes in all key areas since 2002. UL Lafayette faculty members are invited to states throughout the country to present information about their program and the state’s criteria.

“People are looking to Louisiana. The state is highlighted at many Wallace Foundation meetings and Louisiana representatives are invited to serve on national programs. Education Week even did a big spread on them,” said SREB Learning-centered Leadership Program Director Kathy O’Neill.

The progress has moved beyond just UL Lafayette and sister institutions to the entire state. “What’s happened is that there has been an expansion of these islands of excellence to what is now a state of excellence,” she said.

Among the exemplary aspects of UL Lafayette’s program she cited is the way the faculty has partnered with school districts in the development of the program.

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-UL Lafayette Vice President for Academic Affairs Steve Landry

“School districts now have succession plans - with pools of leaders they can tap when a principal vacancy comes open, instead of being caught off guard. Businesses do this, but it’s not been done in education,” O’Neill said. “UL Lafayette worked closely with Lafayette Parish and established a good rapport that allows the two to work together,” she said.

UL Lafayette has implemented changes to its teacher preparation program as well as its leadership program in response to state reforms and direction by the UL System. Among other things, UL Lafayette guarantees to re-train a new teacher at the university’s expense if the school district does not feel he or she is prepared.

Teacher preparation programs are important in shaping the school leaders of the future. UL Lafayette participates in a Wallace Foundation grant to develop leadership skills in teachers, said Janet Hiatt, a 17-year veteran principal and now Director of Schools in Lafayette Parish.

“The whole leadership team at the school is so important. It’s a collaborative effort. You have to have someone trained and knowledgeable at the head of the team. That’s the principal. But teachers have such ideas and knowledge that are research based and based on the needs of that school. That’s why they have to work together,” she said.

Helping principal candidates to understand the data about student achievement in their school is an important aspect of the program, Hiatt continued. Roberts agrees and says it’s a critical shift that leaders must make if they are to meet the expectations of the state and school districts. They load candidates with data and help them to dissect it.

“Most of the program is geared toward data decision making. In the past, someone might have said, ‘We have poor kids and need help with reading.’ The response would often be, ‘How do you know?’ Now, they have the data and have something to back it up,” he said.

For More Information Visit: www.coe.louisiana.edu
Southeastern Program Helps Combat Nursing Shortage

HAMMOND - A leading researcher recently compared America’s growing nursing shortage to a developing storm that will strike the nation “like a Category Three Hurricane.”

It is an analogy that the average American might not fully grasp but one that people in Louisiana understand all too well. A major nursing producer, Southeastern Louisiana University, is implementing strategies to combat this issue.

According to Peter Buerhaus, a leading nursing workforce analyst from Vanderbilt University, and his colleagues, there could be as many as 500,000 vacant nursing positions nationwide by 2025. This severe shortage could “incapacitate the health care system,” leading to “more infections, falls, cardiac arrests and medication errors,” Buerhaus said.

Their report, published in Nursing Economics, The Journal for Health Care Leaders, and presented in May to the National Press Club in Washington, pinned the anticipated shortage on an aging nursing work force and an exploding demand for health care as 78 million baby boomers reach age 65.

Although there are no available studies that identify the extent of the anticipated shortage in Louisiana, health care and education leaders are preparing for the worst. The University of Louisiana System Board, Presidents, and eight universities, of which Southeastern is a part, have pledged to produce an additional 2,400 new graduates per year by 2012 in high-demand areas, including health care.

Southeastern, the fifth largest nursing producer in the United States, is working with state nursing and education leaders to recruit more students into the profession, give them a high quality education that is grounded in the realities of the workplace, graduate more nurses quickly and help keep them on the job.

In the fall, Southeastern will begin enrolling students under a new program that allows graduates of associate degree nursing programs to earn a bachelor’s degree in nursing in as little as a year if prerequisites have been met. In addition to this CALL - Continuum for All Louisiana...
Learners - program, Southeastern developed a similar accelerated track program for students seeking a second bachelor’s degree. It allows students to obtain a degree in nursing in as little as 18 months.

Additional state funding allows Southeastern and other universities to enroll more nursing students to address the shortage. This has helped Southeastern graduate over 40 additional nursing students per year—an increase of more than 45 percent over the past four years—and the state to increase nursing graduates by about 36 percent over the last six years, according to Southeastern School of Nursing Director Barbara Moffett.

“We’re seeing a great response to our recruitment efforts. I think we’re all doing our part to keep the workforce in place. The challenge is retention,” she said. “That’s where working with nursing leaders statewide and hospitals in the region is essential.”

One way Southeastern is responding is by giving nursing students hands-on work experiences with one of its approximately 100 health agency partners—both in Hammond and in the surrounding area.

“We’re even working on the front end—at admission—to make students aware of what the field is really like, so they won’t be disappointed when they find out it’s different from what they see on TV,” Moffett said.

Southeastern also is working with hospital administrators and other health care leaders to survey nursing graduates and address the issues that coax nurses out of the profession.

“We want to find out what they like about their jobs and what it would take to satisfy them. In some cases, it’s more flexible working hours. In others, it’s giving nurses a greater say in the operation of their facility,” Moffett said. “Once we know what the issues are, we are better equipped to address them.”

Moffett said the need for nurses is particularly acute in hospitals. “Nurses are more mobile than they were in years past, and they have more choices. Some in this generation of students, who are coming into the program and graduating now, have their careers mapped out. They might start out at a hospital but often see their career as taking them to become nurse practitioners, nurse anesthetists or into private practice, so their time in an acute care facility is limited. We want to help address that.”

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One of Southeastern’s primary and long-standing partners is North Oaks Health System, the largest community-based hospital organization on the Northshore and second largest employer in Tangipahoa Parish. North Oaks serves as a clinical site for Southeastern’s School of Nursing and other health studies programs. The health system also subsidizes students’ educations through a stipend program that pays students for every semester they spend at Southeastern, in exchange for working at the hospital after graduation.

Hospital officials agree with Moffett’s assessment. “The transition from nursing student to registered nurse can be challenging. That’s why we set the expectation that each staff member is counted upon to mentor, support and assist our new nurses with their entry into practice. Our new nurses are our future, so we put special resources into providing them with an outstanding orientation to professional nursing,” North Oaks Senior Vice President/Chief Nursing Officer Paula Hymel, RN explains. “Our senior staff are key to these processes. They lend their expertise, skill and personal knowledge in the art of nursing. From there, a collaborative relationship develops between the staff, and excellence in nursing is the result.”

North Oaks and Southeastern are taking the same collaborative approach to assessing and addressing health care worker needs on the Northshore. In March of this year, health system and university officials formalized a cooperative endeavor agreement that calls for North Oaks to provide facilities and services to the university to assist in increasing the number of students in its health care education programs.

“Increasing the number of students creates a larger pool of available candidates to ensure our ability to meet the Northshore region’s current and future health care needs,” asserts North Oaks Senior Vice President of Human Resources Carolyn Adema.

Through the cooperative endeavor agreement, North Oaks officials will make available to Southeastern an interactive auditorium-style classroom they are constructing as part of a $250 million expansion to meet the health system’s own community and employee educational needs. The $1.7 million community investment is scheduled for completion by year’s end on the main hospital campus in Hammond.

“No one will the new classroom provide a Northshore location for courses to be taught, but also it will be a place for clinical instructors to simulate the patient care environment to ensure nursing skill and competency,” North Oaks Vice President of Human Resources Jeff Jarreau adds.

“Another benefit to the North Oaks partnership is that Southeastern can offer students opportunities that allow them to stay on the Northshore for some of the classes that have traditionally only been offered in Baton Rouge, which is often a tough commute for these students,” Moffett said.

It also makes it easier for adult students—many who work and have families—to get their nursing degree and enter the ranks.

For More Information Visit: www.selu.edu/call
partnerships across northern Louisiana,” says Reneau. “We continue to look forward and to be a catalyst for change along the I-20 corridor.”

In response to Louisiana’s need for professionals in critical shortage areas, the University of Louisiana System Board, Presidents, and eight universities, of which Tech is a part, have pledged to produce an additional 2,400 new graduates per year by 2012 in engineering, health care, business and education.

Governor Bobby Jindal has made strengthening Louisiana’s work force a top priority of his administration.

“Louisiana Tech has been proactive in developing strong research and economic partnerships across northern Louisiana,” says Reneau. “We continue to look forward and to be a catalyst for change along the I-20 corridor.”

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demand for employees with particular skills and the education and training institutions that can turn out graduates with those skills,” Secretary of Labor Tim Barfield said. “Once we can draw a straight line between them, we will have overcome one of the largest obstacles to economic development in our state. The eight campuses of the University of Louisiana System are an important component of that solution.”

Because engineering is one of Tech’s areas of excellence, increasing the number of new top-notch engineers is a priority. However, upon graduation, many of these highly-sought-after graduates end up leaving Louisiana to find opportunities elsewhere. With its focus on nurturing and creating technology businesses in the I-20 corridor, Tech’s Enterprise Center aims to change this.

The center houses the Louisiana Tech Technology Incubator and the Technology Business Development Center. Over the last three years Louisiana Tech has generated 90 new inventions (four times the national average), 23 technology licenses, and 12 new start-up companies. Four other companies have set up expansion operations in Ruston as a result of these activities. Currently the Enterprise Center is host to 10 companies developing new technologies.

Tech graduates and Louisiana natives, computer science professor Mike O’Neal and entrepreneur Marcus Morton, have started their second technology business through the Enterprise Center. The first, OneNetNow.com, was sold to Earthlink. The second, Network Foundation Technologies (NFT), was recently awarded a $500,000 Phase II grant by the National Science Foundation, making it the first Louisiana company since 2005 to receive the award. The high-tech software company developed Nifty TV, which streams live long-form high-quality video online. It broadcasts free sporting events for such clients as Arena Football 2 and the Central Hockey league.

NFT employs 31 people, most of them Tech graduates. It also hires students in part-time positions.

“We’re planning to expand, and we like growing the company from within. So, as we hire students, it’s basically a multi-year job interview for what will be a great job in the future,” O’Neal said.

The Oak Grove native with degrees from Tech and UL Lafayette said Louisiana produces engineers with the talent and ingenuity to make businesses like his successful and to make Louisiana a state where technology businesses are born.

“The entire state of Louisiana has been proactive in moving the state from a smokestack economy to a knowledge-based economy. I believe that Louisiana is a great place to start a company right now. It’s very business friendly. I travel all over the country and world. This is the most business-friendly location I’ve found.”

-Louisiana Tech University Graduate and Entrepreneur Marcus Morton

“We have so much in our favor here. Universities do such a good job educating engineers and scientists. It’s a travesty when they have to leave the state,” O’Neal said.

He said talent is the main component of a successful venture, but facilities and infrastructure are crucial as well.

Tech provides new facilities, at little cost to Enterprise Center tenants. Also, the City of Ruston provides uninterruptible utilities to NFT, which is critical since the company sometimes broadcasts multiple sporting events at a time.

“We can’t afford to be knocked out by a summer thunderstorm,” O’Neal said.

In addition, Tech is part of the Louisiana Optical Network Initiative (LONI), which provides professors at Tech and other universities with high-speed internet that can handle the kind of capacity NFT and other high-tech businesses require.

The state invested $40 million over 10 years in LONI, a state-of-the-art, fiber optics network that runs throughout Louisiana and connects Louisiana and Mississippi research universities to one another as well as National LambdaRail and Internet2. This allows greater collaboration on research that produces results faster and with greater accuracy.

Since incubator tenants are housed at Tech, they, too, can benefit from the network.

Another investment in Louisiana’s knowledge-based economy is the Angel Investor Tax Credit Program, which rewards qualified individual investors for investing in early stage, wealth-creating businesses. Investors can receive refundable Louisiana income or corporation franchise tax credits of up to 50 percent of the money invested, up to $5 million.

Morton, who was born and reared in Shreveport, gave the program much of the credit for his locating NFT in Louisiana and Ruston.

“The entire state of Louisiana has been proactive in moving the state from a smokestack economy to a knowledge-based economy,” said Morton, a Tech undergraduate and Masters in Business Administration graduate who now splits his time between Ruston and Los Angeles. “I believe that Louisiana is a great place to start a company right now. It’s very business friendly. I travel all over the country and the world. This is the most business-friendly location I’ve found.”

Morton articulated this optimism to community and business leaders at a press conference where the NSF grant was announced.

“There is no reason we can’t be similar to Austin and Silicon Valley as far as growing a technology intellectual property economy,” Morton said. “When Silicon Valley started, there was nothing but orange groves. Somewhere between pecan and peach groves, we have the underpinnings of it.”
Nicholls of Business has long maintained AACSB International accreditation, which is held by five percent of business schools around the world. With entrepreneurship and business expansion at the heart of economic vitality, Nicholls' increased focus on top-notch business education is essential to the region and state, said Nicholls President Stephen Hulbert.

"Efforts by the College of Business Administration are consistent with the university's strategic goal of enhancing services to the community and state," Hulbert said. “The collaboration by the college with community partners to enhance job placement of our students is also a major initiative that we are...“

Nicholls Programs Help Make Grads Business-Ready

THIBODAUX - The center of almost every business transaction is sales, yet training people in this age-old art of persuasion has not generally been offered in the academic setting—until now.

Developing sharp salespeople who can answer the needs of customers and seal the deal has traditionally been left to employers, but it is now the focus of a program at Nicholls State University that is impressing students and business leaders alike.

Nicholls' professional sales program—with its emphasis on behavioral studies, role playing and sales ethics—affords students the opportunity to hone their sales techniques before there is money at stake. The program also has applications in other aspects of business, such as management and human resources.

Part of the marketing program in the College of Business Administration, professional sales is one of several recent offerings that are providing students with real-world experience and giving employers what they want, graduates who are more job-ready. The university has enrolled its first Executive MBA class; its incubator for student businesses has its first tenant; and Nicholls' accounting program earned accreditation by the Association to Advance Collegiate Schools of Business International, a distinction shared by fewer than three percent of accounting programs worldwide. The university's College of Business has long maintained AACSB International accreditation, which is held by five percent of business schools around the world.

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promoting, and I am proud of the lead that faculty members have taken in this regard.”

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A few years ago, Shawn Mauldin, Nicholls’ College of Business Administration Dean, convened a group of business leaders to help Nicholls shape its business education program. The group provided input on everything from the need for an Executive MBA program to the kinds of courses needed in business ethics and sales. It also recommended the creation of a special endowment for the business school. The Capstone Fund, now in its second year, has already raised about $545,000, more than half of its $1 million goal.

“They are very engaged. They don’t mind telling us what we need to be doing,” Mauldin said. He cited business leaders’ sponsorship of an intercollegiate sales competition hosted by Nicholls as an example of this involvement.

The annual Bayou Sales Challenge has students competing in a simulated sales scenario. In addition to sponsoring the event, business leaders serve as judges, give students an opportunity to network with potential employers and, in a sense, audition for their first job.

The competition features the jewel of Nicholls’ sales program, the Sales and Interactive Training Laboratory, which the university built in 2003 through funding from a competitive state grant.

“We can show a student that his questioning technique was off or that he was not executing good listening skills. Or maybe he was sitting too far back. Their performance is greatly increased because they can watch themselves in action.”

-Chuck Viosca

The laboratory is a six-room suite equipped with professional video cameras and one-way observation mirrors, allowing students to role-play while professors and veterans in the field observe. They can also take home DVDs of themselves at work, providing a rare opportunity to perfect their skills before they leave the secure environment of the university.

“We can show a student that his questioning technique was off or that he was not executing good listening skills. Or maybe he was sitting too far back. Their performance is greatly increased because they can watch themselves in action,” said Chuck Viosca, assistant professor of marketing and assistant dean for graduate programs and special projects, who puts students through their paces in his sales classes.

When they are not involved in role play, students study the behavioral aspects of sales, such as motivation, listening and negotiation. “These are skills that are transferable to lots of other careers,” said Viosca. However, the emphasis is still on experience.

“We more than half of students’ grades are determined by role-play performance,” explained Viosca. “Instead of paper and pencil tests on what they should do, they actually have to go in and do it.”

On his graduation day, recent Nicholls sales graduate Dustin Hebert explained to the Thibodaux Daily Comet newspaper how his experience in Viosca’s classes had shaped his college career and pointed him in the direction of sales. “He showed me I have a knack for it,” Hebert said.

The Nicholls’ sales lab is one of only about 120 nationwide. Viosca said local businesses find the facility so effective some have used it to train their own sales staff.

Bill Hornsby, a financial advisor who sits on the Nicholls business advisory board, said he has been pleased to see the university’s progressive approach to sales education since it is how he has spent his career. He did not have courses in sales available to him when he was in college in Lafayette in the 1960s.

“We’ve always taught sales classes in our offices. It would be helpful for employees to have had the courses before coming to us,” said Hornsby, who helped fund resources and furnishings for the sales lab.

Robert Naquin, area president of Capital One bank, also sits on the advisory board. A Nicholls graduate, he said he is impressed with all of the positive changes taking place at the university and has always been eager to hire Nicholls graduates.

“Nicholls can provide us with folks born and raised and educated here who want to stay here. Knowing they received the best education possible at Nicholls is icing on the cake,” Naquin said.

For More Information Visit: www.nicholls.edu/business
University of Louisiana at Monroe health studies student Jason Bonner discusses his duties with Louisiana Pain Care’s practice administrator Chase Soong. Bonner did his practicum this spring at the clinic and has since started a part-time job there.

**ULM Health Care Programs Respond to Regional, State Workforce Demands**

**MONROE** - From the time he was in high school, Jason Bonner imagined a career in health care. When he enrolled as a student at University of Louisiana at Monroe, he initially thought this interest would take him into nursing. But when ULM created a new program that focused on the business side of health care, Bonner saw his opportunity.

“I had begun to have serious doubts that nursing was right for me,” said Bonner. “As it turns out, I found the perfect compromise. I might not have the same direct patient contact I would have had in nursing, but I can still help people -- from the business side.”

The 22-year-old senior is one of 86 students enrolled in ULM’s new Bachelor of Science in Health Studies program, which will produce its first graduates in December.

In addition to preparing students for entry to medical, dental, veterinary, occupational therapy and other clinical programs, the undergraduate program also prepares students for careers in health care administration and health care support (i.e., pharmaceutical sales, medical or surgical supply sales, and other marketing, fiscal, and communication aspects of the health care industry).

The program is part of ULM’s effort to expand its health care offerings to address the burgeoning need for more workers in all areas of the health care industry. Another program, the Bachelor of Science degree in Diagnostic Medical Sonography, was approved by the Board of Regents in April and is scheduled to admit its first students in the fall of 2009.

“The Bachelor of Science in Health Studies program adds strength to our current offerings and gives students another quality career path in the health sciences with a variety of opportunities,” ULM President James Cofer said. “Education is economic development, and these students enrich not only their own professional...”
The U.S. Department of Labor projects that education and health services will be the fastest growth industry in the country through 2014, accounting for 3 out of every 10 new jobs. The latest data shows a current need for almost 10,000 health care workers in Louisiana alone.

lives by participation in this program, but they are also perfectly positioned to fortify the health sciences field, an asset wherever they go.”

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According to the Dean of ULM’s College of Health Sciences, Denny Ryman, the high demand for health care professionals accounts for much of the popularity of ULM’s health care programs.

“Many students field 8-10 job offers by the time they graduate,” Ryman said. He receives calls from interested employers throughout the nation and state.

ULM’s health studies and sonography programs are unique in Louisiana, and students are responding with great interest. Much of the attention is from students who had initially planned careers as licensed health care professionals.

The licensed professional programs, such as ULM’s popular pharmacy program, have limited vacancies, but the health studies program, in particular, offers these students a viable option, said ULM Health Studies Department Head Jessica Dolecheck.

Another attraction for students is the starting salaries—often ranging between the high $30,000s and $55,000, she said.

After researching programs in other states, Dolecheck and her colleagues worked with health care administrators in the region to develop the health studies curriculum.

“We met with business leaders and ran four to six weeks of focus groups. Their responses helped shape our program and will continue to have an influence in the future.”

-University of Louisiana at Monroe Health Studies Department Head Jessica Dolecheck

Bonner did his practicum this spring at Louisiana Pain Care in Monroe, working in the business office under the guidance of practice administrator Chase Soong. He has since joined the staff as a part-time employee. In December, the Bastrop native will graduate, and then who knows?

“I hope to stay in the region,” he said.
improving the quality of life in our
state. The fact that all of our eligible
degree programs are nationally accred-
ited means students have access to a
first-rate education through North-
western.”

Increasing the number of graduates
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Employees of Local Industries Seek College
Degrees Through Northwestern’s
Online Program

NATCHITOCHES - It’s a Tuesday after-
noon and Monique Hamilton is ending
her shift at Pilgrim’s Pride’s Natchito-
ches plant and starting her day as a
college student.

Hamilton is one of more than 4,400
students enrolled in Northwestern
State University’s online learning pro-
gram. The nine-year-old program
makes it possible for people every-
where to take courses and earn college
degrees without ever stepping foot on
a campus.

Hamilton is working on a bachelor’s
degree in criminal justice, her second
bachelor’s degree from the university.
The criminal justice program is one of
15 associate, bachelor and graduate
degree programs offered online by the
university in the areas of business,
education, health care and criminal
justice, among others.

“Northwestern, as evidenced in its
mission statement, is a responsive,
student-oriented university,” NSU
President Randall J. Webb said. “We
strive to be responsive to the needs of
students as well as business, industry,
education, and health care sys-
tems. We take very seriously our role
in promoting economic develop-
ment. We offer a vast array of under-
graduate and graduate courses and
degree programs totally online be-
cause we want to play a major role in
improving the quality of life in our
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Increasing the number of graduates
per year is a major initiative of the
University of Louisiana System. Also, in
response to Louisiana’s need for pro-
fessionals in critical shortage areas,
the UL System Board, Presidents, and
eight universities, of which Northwest-
erern is a part, have pledged to produce
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year by 2012 in health care, business,
education and engineering.
Governor Bobby Jindal has made strengthening Louisiana’s work force a top priority of his administration.

“One of the goals of our redesign of the workforce development system in Louisiana is to connect the dots between market demand for employees with particular skills and the education and training institutions that can turn out graduates with those skills,” Secretary of Labor Tim Barfield said. “Once we can draw a straight line between them, we will have overcome one of the largest obstacles to economic development in our state. The eight campuses of the University of Louisiana System are an important component of that solution.”

Stephanie McBride and the team at NSU’s Office of Electronic and Continuing Education have worked with three local businesses—Pilgrim’s Pride, Alliance Compressors and Weyerhaeuser—that have made college courses a benefit of employment in their companies, just like health insurance and 401Ks.

NSU’s Online Programs by the Numbers:

- 50% of NSU students take online classes
- 75% of online students are female
- Over 50% of online students are non-traditional (over 25 years old)
- 21 graduate degrees were awarded to online students in 2006-07
- 76 Master’s degrees were awarded to online students in 2006-07

For More Information Visit: www.nsula.edu/ece/ensu.asp

Northwestern Vice President for Technology, Research and Economic Development Darlene Williams said online courses are an effective way for workers to further their education. “About 50 percent of our students take courses online, a figure that has more than quadrupled since 2002.”

She said about 75 percent of these students are female, with more than 50 percent of them non-traditional students, or those over the age of 25. The flexibility of online courses is a major reason.

“Taking classes online is much more convenient for me,” said Hamilton. “I work from 7:30 a.m. to 4 p.m. and taking classes online allows me to do my work any time at any place. I don’t have to take time off from work and run to campus for a class. It also allows me to manage my time so that I have plenty of time to spend with my family.”

Stephanie McBride and the team at NSU’s Office of Electronic and Continuing Education have worked with three local businesses - Pilgrim’s Pride, Alliance Compressors and Weyerhaeuser - that have made college courses a benefit of employment in their companies, just like health insurance and 401Ks. “These three area industries foot the bill for employee coursework, either through billing from the university directly after employees complete a course or by reimbursing employees,” she said.

In an arrangement with Pilgrim’s Pride, NSU bills the company at the end of each semester, eliminating the need for students to come up with the upfront cash for tuition and fees. Pilgrim’s Pride, the nation’s largest chicken processor and supplier, requires students to make a grade of “C” or better in the course.

All 750 or so employees of Pilgrim’s Pride’s Natchitoches facility are eligible for the tuition benefit. The program began in August 2006 and company officials are publicizing the opportunity to encourage employees to take advantage of it.

Employees, or “partners,” as the company refers to them, are not limited to courses directly related to their jobs, which might lead people to wonder what is in for the company. Pilgrim’s Pride Manager of Partner Development Donna Kuykendall explained it is all part of the company’s commitment to continuous improvement.

“We see it as adding value to the personal and family lives of our partners,” Kuykendall said, both because of the career opportunities it presents and the personal satisfaction it encourages.

In addition, continuous learning is good for business, she said. “I always think that when people are in a learning mode, they are more aware of things around them and eager to try new ideas. Regardless of the program you’re in, it causes you to be current and to discuss new and better ways of doing things.”

Hamilton offers the following advice to people considering pursuing a college degree online: “I would tell them to try to overcome their fears and take advantage of the chance to take classes. You can start slowly with just one class and go from there.”

In 2006-07, there were 21 NSU students who received graduate degrees online and 76 who got an online Master’s degree. NSU staff members confer with businesses and students as they work to develop additional offerings.
Grambling State University Center for Mathematical Achievement in Science and Technology (CMAST) Scholars Shontell Traylor and Essence Toombs present their hands-on measurements project to their math class. CMAST is a project, funded by the National Science Foundation, to increase the number of minority graduates in science and technology fields.

**Grambling Program Encourages More Minority Graduates in Math, Science, Technology and Engineering**

**GRAMBLING** - Math can be a stumbling block for many college students, keeping them out of high-demand fields, such as engineering and health care.

When it comes to minority students, the situation is even more challenging. Fewer minority students graduate in science and engineering, a factor that impacts not only these students but Louisiana’s workforce and economic prospects, and Grambling State University aims to do something about it.

According to the most recent figures from the National Science Foundation, African American students earned only 8.4 percent of the bachelor’s degrees in science and engineering in 2004. In Louisiana, where almost one-third of the population is African American, the group represents only about 18 percent of science and engineering graduates.

Grambling’s Center for Mathematical Achievement in Science and Technology (CMAST) is helping students improve their math skills and encouraging more students to graduate in science, technology, engineering and mathematics (STEM). The program, in its third year, is holding math academies for 50 incoming college freshmen and sophomores this summer.

CMAST is funded by a $2.4 million grant from the National Science Foundation. The center’s revamped math courses, freshman and sophomore mathematics academies, research internships and high school teacher workshops have increased the number of students passing introductory math classes by 20 percent since the program started in 2006.

But the real benefit is in opening students’ eyes to the wonders of math and science and the opportunities that strong math skills present, according to Grambling President Horace Judson, a chemist.

“The CMAST program allows us to find new ways to help our students embrace and enliven math concepts. Now is the time to invest in the rigorous disciplines of math and science because these disciplines will provide tremendous opportunities for our African American students,” Judson said.

Grambling CMAST Scholar Heather Smith is a junior majoring in computer science,
with a minor in mathematics. The 19-year-old Ville Platte native said the three-hour drilling sessions in the freshman and sophomore math and computer science academies helped her realize that she is good at math, a factor critical to her success in her studies and career.

“Through repetition, I sharpened my skills. I already had a basic foundation from high school. But there it was procedure, procedure, procedure. This program went further in showing how math applies to real life,” said Smith, who hopes to try her hand at a career in database management or maybe in artificial intelligence.

“The program helped me and my peers to see that most people struggle with math. They also are comforted in learning that the rate of understanding differs from person to person,” she said. “You learn not to be afraid to ask questions—be a determined student, and you can get the job done.”

Grambling CMAST Director RaShon Carruthers said increasing students’ comfort level with math concepts is a primary objective of the program. Besides newly redesigned lecture courses, the program involves students in practice sessions where they apply what they have learned using real-world problems.

“In lectures, they’re learning and taking notes, but we make it more hands-on. It puts them in a comfort zone, where they can feel comfortable going to the board. They get their confidence up and realize, ‘I can do this,’” Carruthers said.

To qualify for the program, students must have declared their interest in earning a degree in biology, chemistry, physics, drafting and design technology, electronic engineering technology, mathematics or computer science. She and her colleagues recruiting high school seniors in the region and throughout the nation to apply to the CMAST pre-freshman academy. She also sifts through admissions forms so she can contact eligible students who have already enrolled.

Those who accept the challenge are rewarded in multiple ways. Besides a better grounding in math, students who participate in the two-week academy receive a $400 stipend at the end of the two-week session and a $500 textbook award to use for the fall and spring semester. They continue with the program throughout their freshman and sophomore years, when they are placed in research internships with professors.

“The sophomore year is when they get into research. It gives them an opportunity to grasp what they want to do when they get out of college,” Carruthers said.

The program is a big hit with students and parents alike.

“A lot of universities don’t have this. Parents love it. It gets them acclimated to college life. Because while they are in the pre-freshman academy, they are getting advised, getting classes taken care of, lining up their financial aid, taking care of housing and any thing else they need for the fall semester,” Carruthers said.

“When they enter in the fall, they have everything taken care of. It gives them a leg up. Some students get discouraged from being freshman students and going through that process, doing it on their own. This program helps give them support in transition from high school to college.”

The program also sponsors workshops for high school math and science teachers. Participants earn a $700 stipend and earn three graduate credit hours. This summer CMAST focused on chemistry teachers.

“What they learn here, they will take to their classrooms to help prepare those high school students majoring in a STEM field. That means high school students will be even better prepared and have a sense of confidence when they have that first lecture and lab class,” Carruthers said.

In addition to increasing the number of students graduating in science and engineering fields, the program also aims to increase the percent of these graduates who enroll in Master’s, Doctoral or professional degree programs from a baseline of 5 percent in 2005 to more than 15 percent by 2010.

It is also designed to increase the number and quality of Louisiana’s minority graduates, which is particularly important as the state strives to increase its number of newly-degreed graduates in high-demand areas.

The University of Louisiana System Board, Presidents, and eight universities, of which Grambling is a part, have pledged to produce an additional 2,400 new graduates per year by 2012 in engineering, health care, business and education.

Governor Bobby Jindal and his Labor Secretary Tim Barfield have made strengthening Louisiana’s work force a top priority.

“One of the goals of our redesign of the workforce development system in Louisiana is to connect the dots between market demand for employees with particular skills and the education and training institutions that can turn out graduates with those skills,” Barfield said. “Once we can draw a straight line between them, we will have overcome one of the largest obstacles to economic development in our state. The eight campuses of the University of Louisiana System are an important component of that solution.”

McNeese State University engineering technology student Sheryl Bonin takes a quality control sample for sulfur content in gasoline at CITGO Petroleum’s Lake Charles facility.

Real-World Experience, Industry Partnerships Help Make McNeese Engineering Graduates Job Ready

LAKE CHARLES - Designing an energy savings project for a local refinery is not something college students usually do. But for future engineers and engineering technicians at McNeese State University, tackling the real-life challenges of local industry is par for the course.

McNeese students have designed exit ramps off of I-10 to eliminate congestion in high-traffic areas, recommended heavy lift dock facility improvements at the Port of Lake Charles, and advised a paper company about converting a machine from producing newsprint to brown stock paper.

It’s all part of a strategy, promoted by the university and Lake Area Industries, to produce engineers and engineering technicians that are industry-ready. It also lends to the regional and statewide effort to strengthen Louisiana’s workforce and boost economic prospects.

“In the Lake Area, we’re more focused on production and manufacturing than we are on research. So we’re looking for graduates with practical skills,” said Joe Churchman of Georgia Gulf, chairman of the Lake Area Industries/ McNeese Engineering Partnership.

He and other industry representatives work closely with McNeese officials to refine coursework, give students real-world experience and provide continuing education to engineers and technicians once they are on the job.

It’s a partnership that benefits students, the university and companies alike.

The university works closely with industry to keep its focus squarely on the realities of the workplace, according to McNeese College of Engineering and Engineering Technology Dean Dr. Nikos Kiritsis.

“Industry representatives provide feedback which shapes our content about ways to shape the content we teach so we can make our students more competitive for industry and a better fit for them after they graduate,” he said.

The experience has been essential to recent McNeese graduate Frank Kowatz,
whose senior group project was to design an energy-saving program for CITGO Petroleum’s Lake Charles facility, the fourth largest refinery in the nation. In their final year of college, students choose from a list of industry-proposed projects. Then they design, research, and present their findings, complete with an economic analysis, just as actual engineers do. The project serves as a first draft for the company to consider.

“Basically, we break the project down to an actual work schedule. It’s the kind of schedule you would see in an actual work environment,” said Kowatz, who became one of CITGO’s newest chemical engineers in May. “Our project pretty much prepared us for what we’re seeing on the job.”

The Pineville native had been acquainted with CITGO prior to his senior year, as a result of his participation in McNeese’s cooperative education program, in which students alternate working at a facility one semester and attending school the next.

“The coop program helps break the cycle that has students saying I don’t have a job, so I can’t get experience but if I don’t have experience I can’t get a job. It’s a win-win situation. The student makes money. They enrich their résumé. They get the experience. And the company gets to see its potential employee before making the commitment to offer the student a full-time job.”

According to CITGO Senior Process Engineer Karen Shuler, the coop program combined with the senior or “Capstone” project, serves students as well as companies’ ultimate goals.

“Generally, you hire somebody out of school, and they have all this book knowledge, but they don’t have any practical knowledge. And you have to train them. With this experience, it’s that much less training you have to do,” said Shuler, who acted as supervising engineer on the energy saving project.

Preparing high quality workers for the Lake Area’s petrochemical industry is a high priority at McNeese, Kiritsis said. The industry is essential to Southwest Louisiana’s economy, accounting for $713 million in payroll and benefits and another $970 million in goods and services purchased in 2006, according to a Lake Area Industries Alliance report.

“It’s this area’s bread and butter,” he said.

The industry is also indispensable to Louisiana as a whole, but statistics show companies are short the engineers and technicians they need for their operations. The most recent Louisiana Department of Labor statistics show 3,140 vacancies in engineering. The University of Louisiana System Board, presidents, and eight universities, of which McNeese is a part, are seeking to address the shortage. They have pledged to produce an additional 2,400 new graduates per year by 2012 in high demand areas, including engineering and technology.

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In addition to preparing graduates, McNeese works with Lake Area Industries to provide valuable training and continuing education to professional engineers and technicians.

“McNeese helps us pull together effective seminars using university facilities. As a result we are able to offer focused seminars that industry is looking for, while conserving travel time and expenses,” said Churchman, a McNeese graduate. “This is an extremely valuable service that the university provides.”

McNeese is also helping to attract the next generation of students to the industry through a program known as dual enrollment. Last fall for the first time, the university offered an introductory engineering class at Sulphur High School in which students earned both college and high school credit.

“I think it went very well. I hope to see all nine of those students at McNeese in the fall,” Kiritsis said.

All this contributes to Louisiana’s economy - strengthening existing businesses, expanding job prospects for graduates and keeping more educated young people at home.

“We need to develop our work force and get workers trained to take care of the jobs right here so they won’t have to leave the area to find employment,” Churchman said.
University of Louisiana System

Meeting Workforce Needs Across the State

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