President’s Message:
Meeting the need for prepared STEM workers

I hope the new semester is starting well for you.

One high priority focus for the university in 2018 is meeting the growing need for academically and technologically prepared workers in STEM fields. This requires a listening-intensive, outside-in model of curriculum development that anticipates and quickly responds to the needs of the labor market.

Wichita State and our partners at Wichita Area Technical College are enhancing STEM education through extended apprenticeship and internship programs. This model’s usefulness isn’t limited to STEM fields, but I’ll keep the focus there in this message and count on you to think about how it may apply in your area of expertise.
Our approach to applied education is part of an overarching strategy to position WSU as a modern American university dedicated to the highest quality of applied learning and research to enhance economic competitiveness and the quality of life in our service area and state.

Developing and implementing this model is critical to our part of the country. Wichita has the third highest concentration of engineers in its workforce of all metropolitan areas in the United States — following only Silicon Valley and Houston, and we are more dependent on advanced manufacturing exports and trade than nearly any other metropolitan area in the U.S.

Over the past several decades, research universities, especially in urban areas, have gained center stage as drivers of American competitiveness. At WSU, we take that very seriously. According to the latest National Science Foundation data, for universities doing a significant amount of engineering R&D, WSU is second in the nation in the percent of engineering research and development funding provided by industry. And in the critical areas of aviation structures and materials, WSU receives more funding from industry than any other university by an order of magnitude.

The emphasis on industry-sponsored applied R&D gives the university the opportunity to employ undergraduate students, especially in several branches of engineering, in jobs directly related to their fields of study working under the mentorship of some of the finest aeronautical structural and materials engineers in the country. When they finish their education, they have substantial real-work experience on major projects of interest to U.S. industry and the military.

We have used the lessons learned from this work to reach out to business and industry in the greater Wichita region and create and implement a process called the “Blueprint for Regional Economic Growth” or BREG. Under BREG, the university asked business leaders and job creators to define the core competencies that would increase their ability to compete globally. We then analyzed their responses and are continuing to develop programs, training, apprenticeships, new approaches to micro-credentials and certificates, designed to meet the needs of these critical employers, especially advanced manufacturers.

One of the most pressing problems that we heard across industries with regard to workforce availability and industrial competitiveness was that, on average, newly graduated engineers took two additional years of training on the job before they could contribute to their companies’ bottom lines.

In response, we created and tested an extended apprenticeship model with one of the advanced manufacturers in the community. Using undergraduate students, we were able to digitize the plans for their most important product with an accuracy, speed and cost not matched by their Asian outsourced engineers.

Moreover, because of the quality of the work and the ability of the students to work with their existing technical staff, even though they were not intending to hire, they offered jobs to 35 percent
of the students, and 83 percent of the students in the program found employment within the regional labor market. The remainder found immediate employment outside the regional area or entered graduate school.

Most importantly, the company estimated that the apprenticeship model reduced the engineer’s time to contribute to profitability from two years to less than six months.

One of the most important lessons for the university is that the quality and availability of a well-educated STEM workforce coupled with high-level applied R&D in an environment that is focused on innovation and entrepreneurship can help drive competitiveness and economic viability not just on America’s coasts, but in the heartland as well.

We are building on these lessons to develop Innovation Campus as an urban innovation district based on the emerging needs of advanced manufacturing and global trade. To date, WSU has been able to attract the following key industries to campus:

- Airbus’ North American engineering headquarters.
- Dassault Systemes North American center of excellence. This is a French company that makes the most widely used design software in aviation.
- Hexagon Manufacturing Intelligence has created the most advanced three-dimensional inspection system in the country, and possibly the world, on our campus.

In all three cases, it is the availability of well-educated STEM students, our emphasis on applied research and our emerging apprenticeship and internship models that are driving their interest.

As you know, WSU is completing its affiliation and integration with Wichita Area Technical College. On July 1, WATC becomes the WSU Campus of Applied Sciences and Technology. Informally, it will be called Wichita Tech.

This affiliation is specifically designed to increase workforce competitiveness especially in advanced manufacturing, to open new approaches to integrated traditional and technical education, and enlarge the capacities of the region into new areas of STEM expertise, especially around data analytics, cyber security and advanced materials associated with advanced manufacturing.

To summarize the lessons learned so far: well-designed apprenticeship and extended internships under the guidance of professional mentors can make a major difference in the quality of the student’s education and the competitiveness of the region’s economy.

The programs work best when they are the result of careful listening and ongoing interaction with the private sector and when they are experienced within an educational environment characterized by applied R&D, innovation and entrepreneurship focused on the future. We believe at WSU that we are making that future.
I’m interested in your reactions and especially in learning about good results you’ve had with applied learning apprenticeship and extended internship models in non-STEM fields.

Write to me, president@wichita.edu.
SEM Check-In: Transfer students

In conjunction with the university’s Strategic Planning process, WSU has developed a Strategic Enrollment Management (SEM) plan for growth over the next three years. To stay informed on the progress toward our goals, we will provide regular updates on the status of one of the goals and share information for you to assist us in moving the goal forward.

This month, we’ll focus on: Goal 8 – Increase enrollment of new fall degree-seeking transfer students by 11 percent yearly through fall 2020.

Wichita State is the largest transfer destination in the state among community college students. Every fall we have approximately 1,200 new degree-seeking students transfer to WSU, of which approximately 800 are from community colleges. Students transferring from Butler, Hutchinson and Cowley community colleges make the largest share of those transfer students.

Transfer students are a very important group of students, and we want to do everything we can to ease their transition to the university. Although we’re tops in the state, our enrollment among this group has actually been flat recently, largely because of decreasing enrollment among community colleges. In fact, the Kansas community college system was down more than 1,500 students during fall 2017.
So what are we doing to help?

One of the main things that prevents community college students from transferring to WSU is not knowing the answer to the following questions:

1. How will my courses transfer?
2. How long is it going to take to finish a degree at WSU?
3. How much is it going to cost?

We want to help with this and are happy to announce the launch of a gateway – www.wichita.edu/transfergateway – that prospective community college students (or any other student considering a transfer to WSU) can go to get the answers to these questions.

What can you do?

Encourage prospective transfer students to visit our website at www.wichita.edu/transfertowsu where they will find a link to the gateway. While using the gateway, they will be able to send a question to a transfer specialist or request evaluation of a transfer course.

Thank you for all that you do to support SEM. It takes all of us to make sure current and prospective students have a great experience at WSU.

Thoughts or questions? Write to Rick Muma, interim provost, rick.muma@wichita.edu.
Welcome back! I hope you had a great holiday and are ready to start your new semester.

As we commemorate the 50th anniversary of Dr. Martin Luther King Jr’s assassination, his voice and message continue to resonate as we address social and political challenges. I am grateful to Dr. King for laying the foundation for the work of the Division for Diversity and Community Engagement, and the current challenges underscore the importance of this work now more than ever.

Dr. King’s call for social justice was irrespective of race, creed, religion and socioeconomic status to ensure the promise of fairness and equity for all citizens.

One of the many wonderful opportunities within the WSU community includes the platform to encourage and exchange ideas with others. As we celebrate the legacy of Dr. King, I encourage each of you to consider the following as we strive to advance our community:

- Engage in dialogues that are not only important to you but to others in your community.
- Explore the differing sides of social challenges to ensure we have an informed citizenry.
- Facilitate opportunities that create understanding and build a better community for the future.

Lastly, I will be teaching a course this semester on the life, legacy and lessons of Dr. Martin Luther King Jr. and believe this is a timely opportunity for students, faculty, staff and community members to learn and reaffirm the values, beliefs and commitment of his legacy to the university and the greater community.
Within the WSU community, our commitment is unwavering to explore and expand the number of opportunities for all who support these values, and I look forward to working with each of you this semester as we move forward.

The President’s Diversity Council is on the move this semester, looking for opportunities to engage in town halls, focus groups and dialogue.

"The right time to do what is right is right now." – Dr. Martin Luther King Jr.

Dr. Marche Fleming-Randle
Vice President Diversity and Community Engagement
Kaye Monk-Morgan believes that a college education can change the entire financial and social trajectory of a person’s family. That’s why she has worked tirelessly as director of WSU’s TRIO Upward Bound Math Science Center the past 20 years, guiding hundreds of low-income, first-generation students toward their future.

It’s her time with TRIO that gave Kaye the tools for her new position as assistant dean for students in the Fairmount College Dean’s Office.

In her new role, which she began in November, she serves as the liaison between the Fairmount College and Admissions and supports LAS student organizations.

“My new position allows me to bring the best of what I learned working in TRIO to a larger stage, to apply those lessons to more students and to systems that aren’t always created to work with educationally marginalized populations,” she says.

Kaye says she hopes to create better solutions and improve systems so barriers become smaller and fewer.

**Helping students be the people they want to be**

Kaye calls herself living proof of what a college degree – and learning how to persevere – can do.

“I had lots of challenges, many of them related to persons doubting my knowledge and my abilities,” she says. “What they didn’t know was that when you’ve had a job since you were 12, helped cover expenses in your home since you were 16 and are the first in your family to attend and graduate college, you can do and know how to do a lot of things that your peers don’t.”

Kaye graduated from Wichita North High School, a point she is particularly proud of. Her parents and their siblings, nearly half of her 24 cousins and her niece all attended North High.

She came to Wichita State in 1989 as a Gore Scholar and went on to earn her bachelor’s in chemistry / business, master’s in public administration and a certificate of higher education administration.
While a student, Kaye also started her first of many jobs at WSU. She was a student employee in Housing and Residence Life, working with students of color who lived on campus. That led to a full-time position as residence hall director and then director for two years of the AmeriCorps program through LAS and the Hugo Wall School.

When the decision was made not to reapply for the AmeriCorps grant, Kaye moved to the Admissions as the first, full-time employee dedicated to the recruitment of community college transfer students.

After three years working to recruit students, she joined the Office of Special Programs as the director of the TRIO Upward Bound Math Science Program. She was only 27. There she stayed for 20 years, and while she now has a new role with the university, her work with TRIO is far from over, as she continues to serve as liaison with Wichita State’s 10 TRIO programs.

Serving students will always be what motivates Kaye.

“My favorite thing about working at WSU is the students and the opportunity to help them become the people that they say they want to be,” she says. “I believe I have been created for this work, and I love to do it.”

Kaye says she was fortunate to have grown up in a family with a lot of love and support. Her grandfather, John Monk, who turns 102 years old this month, role-modeled family for her and her siblings, and she says she tries to live up to that example.

She and husband Derek Morgan, a WSU grad and manager of the Military Certification Office for the Federal Aviation Administration, have been married for 21 years. They have two sons; Payton, a mechanical engineering student at WSU, and Cameron, a senior at Wichita Northeast Magnet High School.
Grant of the Month: Collaboration leads to $1.8 million grant for WSU

A collaborative study between Wichita State University, the University of Kansas Medical Center and a Kansas State University-led team of psychological sciences researchers has received a prestigious five-year, $10.6 million Centers of Biomedical Research Excellence (COBRE) grant.

WSU will receive a sub-award for their collaboration with KSU, totaling $1,781,344. The grant will go toward two research projects. Rui Ni, WSU associate professor of psychology and project leader for both projects, plans on using this grant to further his research and to help others.

“The project will focus on the neuronal plasticity among older adults,” says Ni. “We’ll develop training procedures to improve their visual cognitive functions and look for transferred learning effects on driving performance.”

» Read the full article below:

WSU, KSU collaboration leads to $1.8 million grant for WSU

Thursday, September 14, 2017

By Sydney Payne
• Wichita State has received a $1.8 million grant -- part of a $10.6 million project with Kansas State University and the University of Kansas Medical Center.
• The grant money will be used for two different projects, one focusing on the neuronal plasticity among older adults, and the other creating a 3D driving simulator.
• Learn more about Rui Ni’s projects and the COBRE grant sub-award at http://bit.ly/ruinicobre.

A collaborative study between Wichita State University, the University of Kansas Medical Center and a Kansas State University-led team of psychological sciences researchers has received a prestigious five-year, $10.6 million Centers of Biomedical Research Excellence (COBRE) grant.

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“The project will focus on the neuronal plasticity among older adults,” says Ni. “We’ll develop training procedures to improve their visual cognitive functions and look for transferred learning effects on driving performance.”

Ni will use $1,008,870 of the sub-award to fund his project, and the remaining $772,474 will go toward a state-of-the-art 3D high-fidelity driving simulator that will use advanced technology, such as eye tracking, to study driving behavior.

Ni and his colleagues are working on finding a space big enough for the driving simulator, but they hope it will be open to research communities in the Wichita area and throughout Kansas by next summer.

“I think the ultimate goal is to improve driving safety among older drivers and help them to live a happy, safe and more independent life,” says Ni.

Jeremy Patterson, director of the Center for Interdisciplinary Creativity, is excited for this opportunity and looks forward to following Ni and his colleagues’ progress.

“This is a wonderful and deserving achievement for Dr. Ni and collaborators at KSU,” says Patterson. “The purpose of the COBRE funds are to enhance an institution’s biomedical research infrastructure and build relationships with other researchers.”

Ni and his colleagues at KSU spent nearly two years to prepare the original application and another two years to file the resubmission before winning this COBRE grant.
“This would not be possible without the strong support from the former chair, Dr. Alex Chaparro, and the current chair, Dr. Rhonda Louis, of the Psychology Department,” says Ni.

This is the first major COBRE grant sub-award to be received by WSU.

» Learn more about Ni’s projects and the COBRE grant.
What I'm Reading:
Tech companies creating their own courses

When a provost learned from an alumnus that a local company was preparing to hire huge numbers of data analysts, he fast-tracked a new degree program specifically in that subject.

The speed at which the university responded to a workforce need was a major feat – and something experts say needs to happen more of academia is going to keep up with the demand of America’s tech industry needs.

>> Read the full article.