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Read Full Story

$2 million grant for migrant students focuses on STEM education

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Read Full Story

WMU’s new president takes the helm

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Read Full Story
WMU hosts leaders from Pulp and Paper Industry

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Come See Us at the Homecoming Tailgate Oct. 14!

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Join us for an upcoming Custer Talk

Congratulations to Paulina Yu, a 2017 graduate in chemical engineering, who was the random winner of our Homecoming gift pack, which includes four tickets to the Homecoming game, four tickets to the Homecoming tailgate and a WMU stadium blanket.

Thanks to all our alumni who updated their contact information! Go Broncos!
Engineering Expo '17 was a HUGE success. Take a look at our photo gallery on Facebook.
Upcoming Events

Update Your Info!

Send us YOUR news!

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State-of-the-art manufacturing lab to address shortage of engineers, skilled trades

Construction has begun at Western Michigan University’s Grand Rapids regional location for a state-of-the-art manufacturing laboratory. AMP Lab @WMU, an Advanced Manufacturing Partnership Laboratory, is being built in collaboration with West Michigan manufacturers and Grand Rapids Community College to address the shortage of skilled trades and engineering employees in the region. The Lab will occupy the first two floors of WMU’s downtown Grand Rapids location, which is located on Cherry and Ionia in the city’s Arena District.

“AMP Lab will be a place for collaboration and learning in an advanced manufacturing and design environment,” said Dr. Steven Butt, professor and chair of WMU’s Engineering Design, Manufacturing and Management Systems department. “Entrepreneurs will have opportunities to prototype their ideas. For some it may be a place to start and for others it will be a place to hone a new product, process, or skill. We are pleased to offer this state-of-the-art laboratory for innovation, instruction, training and research.”

The facility will serve as a program to cultivate the next generation of engineers, designers and other skilled individuals to serve the manufacturing industry. The AMP Lab will combine prototyping, training and small-scale manufacturing with the opportunity for individuals to earn a degree.

According to a recent employer assessment by Talent 2025, an organization consisting of 100 CEOs from West Michigan who are working to ensure an ongoing supply of talent for the region, the demand for engineers and designers within manufacturing outstrips the supply of qualified individuals by at least a factor of two. The assessment also states the supply for managers and supervisors within the manufacturing industry in the region is about 90 percent of the demand.

“AMP Lab @WMU will establish academic and career pathways between workforce development entities, educational institutions and industry partners for our region,” said Dr. Dawn Fortin Mattoon, associate provost of WMU’s Extended University Programs. “These pathways can lead to new skills, certifications and degrees, but more importantly, careers in manufacturing, engineering and design.”
The lab will be divided into hands-on instructional learning and research areas. Future arrangement of the facility will support college lab sessions, professional workshops, training sessions, K-12 outreach and workforce development activities.

WMU plans to open the Lab in fall 2018. At that time, the program will connect students with opportunities in manufacturing and engineering education options. Along with WMU, Grand Rapids Community College will have access to offer various manufacturing and engineering courses inside the Lab. An option for other universities from the region to access the facility and high school courses are also being explored.

The development of the AMP Lab @WMU is being partially funded through private investment efforts.

John C. Kennedy, president of Autocam Medical, based in Grand Rapids, has been involved in programs to raise awareness for the need and education of skilled workers throughout West Michigan. He has been instrumental in building support within the engineering and manufacturing communities for the creation of AMP Lab @WMU.

“This open, urban location will allow individuals to see inside an advanced manufacturing space and will help enhance the image of manufacturing,” said Kennedy. “The AMP Lab is a makerspace in its truest form, addressing the needs of entrepreneurs and providing a space to bring ideas to life. Programming this facility will foster a format of collaborative learning between educators and students.”

Komorowski wins first ever Betty J. Georgeau scholarship

Jenny Komorowski, a senior in industrial and entrepreneurial engineering and in the accelerated master’s program in industrial engineering, recently learned she was the first recipient of the Betty J. Georgeau scholarship. The scholarship provides $20,000 a year for two years. It was a complete surprise.

“One day this summer, I scrolled through my school email and saw that I had won a scholarship,” she said. “When I opened the email and saw the amount, I started to sob tears of joy.”

Komorowski, who is from the Chicago area, was selected from a pool of outstanding candidates.
“Jenny is a high achiever, an excellent student and outstanding leader among her peers,” said Dean Houssam Toutanji. “She is committed to the student organizations in which she belongs, and represents our college and WMU very well. She really stood out and is deserving of this scholarship.”

“I still have to pinch myself because it does not feel real,” Komorowski said. “But I am honored and thankful for this wonderful opportunity.”

Dr. Steve Butt, professor and chair of the Department of Industrial and Entrepreneurial Engineering and Engineering Management, nominated Komorowski for the scholarship. “Jenny is one of our top students,” he said. “She truly possesses the qualities and abilities necessary to become a consummate engineering professional and a leader in her field. She is a perfect pick for this scholarship and will be a fantastic ambassador for WMU now and in the future.”

Komorowski has worked as a product design intern for Pridgeon and Clay, an automotive supplier in Grand Rapids, and hopes to work in the automotive industry when she graduates with her master’s degree.

“I love the challenge of the auto industry,” she said. “It’s fast-paced and there are always new exciting design projects to work on.”

The Betty J. Georgeau Scholarship was established through a $500,000 endowment by Phil and Betty Georgeau. Phil Georgeau is a graduate of WMU and founder of Chem Link, a company based in Schoolcraft, Mich., that manufactures products for the construction industry. Betty Georgeau, a passionate and ardent supporter of WMU, passed away in November 2016.

The Georgeaus also provided a $5 million gift for the creation of the college’s Georgeau Construction Research Institute, allowing researchers to pursue innovative construction research that addresses the numerous challenges facing the construction industry.

Welcome to new faculty

The College of Engineering and Applied Sciences is pleased to welcome several new faculty for the 2017-18 academic year.
Dr. Jinseok Kim

Dr. Jinseok Kim joined the Department of Mechanical and Aerospace Engineering as assistant professor. He received bachelor’s and master’s degrees in civil engineering from Hannam University in South Korea. Additionally, he holds a master’s degree in civil engineering from Texas A & M University and a Ph.D. in mechanical engineering from Texas A & M. His research interests include solid mechanics, computational mechanics, finite element method, plate and shell theories, non-local theories, functionally graded materials and piezoelectric materials.

Dr. Qiang Yang

Dr. Qiang Yang joined the Department of Chemical and Paper Engineering as assistant professor. He received bachelor’s and master’s degrees in chemical engineering from the University of Wisconsin-Madison. He also holds a Ph.D. in polymer chemistry and physics and a Ph.D. in biological systems engineering. His research interests include green chemicals, renewable energy, sustainable materials and nanomaterials from renewable resources.
Dr. Qingliu Wu

Dr. Qingliu Wu also joined the Department of Chemical and Paper Engineering as assistant professor. He holds a bachelor’s degree in chemical engineering from Xiangtan University in China and a master’s degree in chemical engineering from Tsinghua University in China. He received his Ph.D. in chemical engineering from the University of Kentucky and did post-doctoral work at Argonne National Laboratory, focusing on battery technologies. His research interests include advanced materials for energy storage and conversion, especially novel materials for Li-ion, Li-S, Li-O2 and all solid-state batteries, aiming at electrical vehicles, hybrid electrical vehicles and wearable devices.

Colin MacCreery

Colin MacCreery joined the Department of Computer Science as faculty specialist. He received his bachelor’s and master’s degrees in computer science at WMU. His teaching interests include embedded programming, programming language design, web frameworks and server backend applications.
Western Michigan University has been awarded more than $2 million over the next five years to support first-year, first-generation undergraduate students who are migrant or seasonal farmworkers, or the children of such workers.

The U.S. Department of Education and its Office of Migrant Education awarded the grant to fund their long-standing College Assistance Migrant Program. The University is one of only 10 institutions in the country and the only one in Michigan to receive grant money for CAMP's new funding cycle.

WMU's CAMP project, which is housed in the Division of Multicultural Affairs, will receive $416,293 for the 2017-18 academic year and $2,107,988 overall. The College of Engineering and Applied Sciences will help give new WMU-CAMP participants increased access to STEM -- science, technology, engineering and mathematics — coursework and activities.

Diana Hernández, director of the Division of Multicultural Affairs and principal investigator for WMU-CAMP, reports that the program will enroll an average of 40 eligible students during each year of the 2017 through 2022 grant period. Nationwide, CAMP helps out about 2,000 students each year.

"Migrant and seasonal farmworkers are essential to the agricultural industry in the United States and in Michigan, yet they continue to be one of the most impoverished and underserved populations in this country," Hernández said. "Our unique, holistic service plan for the CAMP program provides participants with the comprehensive academic, financial, school-transition and other support services they need to successfully complete their first year of college and continue their college education."

The WMU-CAMP program is designed to address a federally identified priority that calls for increasing the number of students who are prepared to enter STEM fields.
"Teaming up creates another good opportunity for WMU to emphasize STEM education," said Dr. Jorge Rodriguez, WMU-CAMP's co-principal investigator and an associate professor of engineering design, manufacturing and management systems.

"The collaboration between Diana and her team and the engineering college is a win-win situation for participating students, the seasonal farmworker community and WMU," Rodriguez said. "STEM education is a priority in the global environment we live in, and it's something that will have a significant positive impact in our region."

Hernández notes that southwest Michigan is at the center of the state's stream of migrant and seasonal farmworkers, according to data from the Michigan Migrant and Seasonal Farmworkers Enumeration Profiles Study, conducted in 2013 for the State of Michigan Interagency Migrant Services Committee.

She says other facts also point to the need for programs such as CAMP, including:

- Michigan ranks No. 1 in the production of 18 agricultural commodities, including blueberries, cherries and cucumbers.
- The state's farmers employ an estimated 49,000 migrant farmworkers during a typical summer, resulting in a large population that is eligible for CAMP services.
- WMU-CAMP participants had an overall GPA of 3.19 and a retention rate of 97.5 percent for the 2015-16 academic year.

WMU’s new president takes the helm

WMU’s new president, Dr. Edward Montgomery, second from right, met with faculty, staff and students at the college in September, including those from civil and construction engineering.

In a wide-ranging address after his inauguration as Western Michigan University's ninth president Sept. 15, Dr. Edward Montgomery pledged a presidency focused on a quest for excellence, close ties with community and a focus on the success of students.
WMU’s 9th president, Dr. Edward Montgomery, with faculty and staff from the chemical and paper engineering department.

The new president noted a variety of interactions he's had with a range of faculty, staff, student and alumni groups since taking office Aug. 1. He said it is apparent to him that there is a real desire among members of the campus community to see the University move to the next level and take its place among the "very leading research universities," but to do it in a way that keeps "students at the core of everything we do."

Specific areas of focus outlined by Montgomery in his inaugural speech, included:

- Ensuring more students graduate in a timely fashion and with less debt.
- An entrepreneurial approach to pursue alternative funding to supplement the University's current revenue stream, 98 percent of which comes from state appropriations or tuition.
- A continuous commitment to strengthening programs; broadening research, scholarship and creative activities; and enriching out-of-classroom experiences.

Such actions, he said, will help students fulfill their potential, embed in them a lifelong search for discovery and help them become engaged citizens.

"By ensuring their success, we ensure our success," he said.

Montgomery, a labor economist with more than 35 years of experience in academia and public service, was selected as WMU president in April by the WMU Board of Trustees. He previously had been the dean of the McCourt School of Public Policy at Georgetown University and earlier had held positions in both the Clinton and Obama administrations. He replaces Dr. John M. Dunn, who announced his decision to retire in 2016.
WMU in September hosted leaders and researchers in the pulp and paper industry at the Agenda 2020 fall meeting. The Agenda 2020 Technology Alliance includes companies, government agencies and university partners who work to identify high priority technology challenges for the pulp and paper industry and promotes scientific research and development to address them.

The group meets three times a year to review progress on its initiatives and priorities, said Lon Pschigoda, general manager of WMU Pilot Plants. “We were pleased to host the fall meeting and have an opportunity to showcase our faculty expertise, our many resources, and our ability to partner and collaborate with industry,” he said.

Dean Houssam Toutanji welcomed the group to campus, thanked the many students present for their participation, and provided an overview of the college and the unique capabilities of WMU Pilot Plants. Dr. Kecheng Li, professor and department chair of chemical and paper engineering, moderated a series of presentations by faculty on topics including flexible sensors and electronics, nanomaterials, and highlights in printing and paper research. Participants also had a tour of WMU’s pilot plants.
WMU is a leader in the field of paper coating research and applications. It is the only place in the world where five pilot plants are available for research and development in pulping, recycling, papermaking, coating and printing. The plants conduct proprietary industry research and provide invaluable experience to student employees.

“We appreciate the hospitality of Western Michigan University and the College of Engineering and Applied Sciences,” said David Turpin, executive director of Agenda 2020. “Our members value such opportunities to learn about these capabilities and hear about the research and innovation coming from them. We especially appreciate the chance to meet the promising students we encounter.”

**Accreditation team visits College of Engineering and Applied Sciences**

The ABET accreditation team made two 3-day visits to the College of Engineering and Applied Sciences in September. The Engineering Accreditation Commission evaluated nine of the college’s engineering programs. A separate Engineering Technology Accreditation Commission visited to evaluate the college’s three engineering technology programs and the organization’s Computing Accreditation Commission evaluated the college’s Computer Science program.

ABET is a nonprofit, non-government accrediting agency recognized by the Council for Higher Education Accreditation. ABET accreditation provides assurance that a collegiate program provides a solid educational foundation that produces graduates ready to enter their respective fields.

The commissions typically evaluate and accredit programs every six years. WMU’s undergraduate programs in the college all are currently accredited.

“The ABET visits were productive and valuable,” said Dean Houssam Toutanji. “The process is time consuming and rigorous. We had very successful visits and I appreciate all the hard work by department chairs, faculty and staff during the past 18 months to prepare us for these visits.”

A final report from ABET will be available by August 2018.

*The college’s graphic and printing sciences program is accredited by the Accreditation Council for Collegiate Graphic Communications, Inc.*

**Come see us at the Homecoming Tailgate Oct. 14!**

Hey Broncos! Are you ready to stampede? The WMU 2017 Homecoming and Family Weekend Stampede Tailgate is scheduled for Saturday, Oct. 14 and all alumni, faculty, staff, students and Bronco supporters in the community are invited to attend. Be sure to stop in at the College of Engineering and Applied Sciences tent to catch up with other alumni, friends and faculty, see our concept vehicles and enjoy family activities.
Dean presents state-of-the-college to faculty and staff

At the first “All Hands” Meeting of the academic year, Dean Houssam Toutanji provided faculty and staff with an update on the state of the college, including an overview of enrollment trends, accreditation efforts, research, faculty accomplishments and budget.

Among the highlights:

- The college had very successful ABET visits. Thirteen of 14 undergraduate programs were visited for accreditation.
- Overall enrollment in the college is at 3,023 – a slight increase from last year. Bachelor’s and Ph.D. enrollment is at a record high.
- During the 2016-17 academic year, degrees awarded also were at a record high, with 359 undergraduates awarded degrees, 201 master’s degree students and 14 doctoral students receiving degrees.
- Research activities and expenditures for the fiscal year 2016-17 totaled $4.5 million, a record high.
- A bachelor’s degree in biomedical engineering is being developed and the inaugural class is slated for fall 2019.
- Two new computer labs opened this fall -- a computer teaching lab and an Apple computer lab -- to better meet the needs of students.
- The college recently received a $100,000 endowment from Mark and Karen Weishaar for scholarships for undergraduate students.
- The college has re-activated the Industry Advisory Board. Its 15 industry members will work with the college on projects to enhance educational and research programs.

Toutanji also announced that the college will be subjected to a budget cut of 2.35 percent. “This budget cut will definitely be felt,” he said. “We will be okay for the current academic year, but the years ahead will be challenging.”

Toutanji thanked faculty and staff for all their efforts during the past year to prepare for accreditation visits. ABET, the accrediting agency recognized by the Council for Higher
Education Accreditation, evaluates and accredits programs every six years. Their accreditation commissions visited the college in late September.

College Snapshot: 2016-17 Enrollment

Join us for an upcoming Custer Talk

Nov. 7, 1 p.m.
Floyd Hall, Room D-115

Dr. Firouz Naderi
Retired Director, Solar System Exploration Directorate at NASA’s Jet Propulsion Laboratory

“Our Cosmic Roots: How did humans come to be on planet Earth, and where to next?”

Dr. Naderi also was head of the Mars Exploration Program from 2000-2005, a span of time that included the successful launch of Mars Odyssey, landing of the Mars Exploration Rover and much more.
Oct. 13, 2 p.m.

Floyd Hall, Room D-132, Parkview Room

Jon Good

Co-Founder and Master Distiller of Green Door Distilling Co., Kalamazoo, and graduate of WMU in Engineering Management

"Inputs and outputs: The mind of an engineer in the entrepreneurial world"