Western Michigan University

W Magazine

Where design meets innovation

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Questions or Comments?
Contact Paula M. Davis at paula.davis@wmich.edu

Frequency
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On the cover: “D+I Built,” the phrase is displayed in various places inside the new Richmond Institute for Design and Innovation, where students build products, guided by high design and with innovation. Inspired by the phrase, this cover was “built” by product design major Sarah Hansen.

Reflection
Dylan Towne, a freshman from Shelby, Michigan, studies upstairs in the Richmond Center for Visual Arts. “This is where I do most of my studying,” Towne said. “It’s where I feel most comfortable — because of the art.” Towne is majoring in art therapy and minoring in psychology.
Dear Friends,

It is remarkable how the opportunities offered by higher education can change the course of an individual’s life. Degree earned, graduates can go on to enrich their communities, advance their professions and make their unique contributions to the world. With that kind of impact at stake, it is critical that we ensure the full promise of a Western Michigan University education is attainable for all our students.

To that end, WMU administrators, faculty and staff constantly work to strengthen services, programs and practices that help students conceived and achieve their academic goals and persist to graduation. And as we fine-tune and create new programs, we model what we expect of students in their coursework—continuous improvement and innovation. One of the major initiatives launched this fall represents a sweeping expansion of our past successes with peer mentoring, taking it to scale so that all incoming freshmen and transfer students benefit.

On pages that follow, you will read about more than 4,000 students who are the first to experience this program, appropriately named Success at WMU. Under development since January, it includes everything from educational support to social activities. Not only is the program designed to help new students feel embraced and supported right away, it also helps them develop essential academic skills. We want students to have the strongest possible start to their college career and to stay on that successful path throughout their academic skills. We want students to have the strongest possible start to their college career and to stay on that successful path throughout their academic careers.

WMU’s ‘invaluable health service’ garners $1.5M in state support

The University’s Unified Clinics, a multi-specialty group practice that annually serves more than 5,000 patients in southwest Michigan and beyond has received a $1.5 million state appropriation.

The collective of 10 teaching clinics provides an array of services, including autism evaluation, behavioral health services, child-trauma assessment, hearing treatment, low-vision services, occupational therapy, speech therapy and women’s health services. WMU student practitioners and supervising professionals provide the care and treatment.

“WMU’s Unified Clinics provides invaluable health care services to some of southwest Michigan’s most underserved,” says state Sen. Margaret O’Brian, who advocated for needed funding to ensure the University can provide the best possible care for patients.

The appropriation, which is the clinics’ first from the state, covers equipment purchases and uncompensated care, as affordability is a major need for the clinics’ patients.

Through this practice, thousands of Michigan residents receive treatment that may not be covered by insurance, is unaffordable through other providers and, in some cases, is unavailable elsewhere.

“We have been recognized by our patients in the community as a safety net,” says Dr. Carol Sundborg, Unified Clinics director.

Multicultural affairs director recognized for leadership

Hernandez, director of the Division of Multicultural Affairs, received the City of Kalamazoo’s 2018 Quetzalcoatl Award in recognition of her leadership as a leader who has been working, contributing, supporting and advocating for the well-being of the Latino community in Kalamazoo.

El Concilio, formerly the Hispanic American Council, is a community-focused organization that works to help Latino residents support their families, contribute to the local area and appreciate their cultural significance in the local region.

Hernandez received her accolade during an award ceremony as part of the Nuestra Raíces Gala in September. “Nuestra Raíces” is translated “our roots” in English.

In announcing the award, El Concilio cited Hernandez for her passionate support of the area’s Latinx community as well as advocating for WMU’s Latino student body. Since she can succeed in college. Under her leadership, WMU has secured two federal College Assistance Migrant Program grants totaling $4 million. This grant program supports first-generation undergraduate students who are migrant or seasonal farmworkers.

In addition, Hernandez has been selected as one of the Top 50 Latinas in Michigan by the governor-appointed Hispanic/Latino Commission of Michigan. The honor recognizes women who have had a commitment to lifelong learning and expansions of their own personal and professional resources. Nominations came from across the state, and honorees were recognized Oct. 12 during the Statewide Hispanic Heritage Month celebrations.

Advanced manufacturing lab launched in Grand Rapids

WMU, in partnership with Michigan’s Grand Rapids Community College and West Michigan manufacturers, has opened a 35,000-square-foot industrial manufacturing facility in Grand Rapids.

The Advanced Manufacturing Partnership Laboratory occupies the first two floors of WMU’s downtown Grand Rapids location and serves as a program to cultivate the next generation of engineers, designers and other skilled individuals to serve the manufacturing industry.

The $2.7 million AMP Lab development and the equipment houses were partially funded through private investment and grants, and the Michigan Economic Development Corporation.

“This cutting-edge instructional laboratory has been designed to meet the demands identified by manufacturing leaders—not only locally, but around the globe—to educate the 21st-century advanced manufacturing workforce,” WMU President Edward Montgomery says.

The AMP Lab combines prototyping, training and small-scale manufacturing with the opportunity for individuals to earn college credits to be used toward a degree or certification. The facility includes 3D printers and scanners, a CAD/CAM lab, a plasma cutter, laser cutter, a welding station, metrology equipment and prototyping tools.

“The AMP Lab is an excellent example of how communities grow stronger when people come together,” GRCC President Bill Pink says.

“We are partnering with Western Michigan University and our area’s employers to give residents skills they need for great jobs as well as their first steps in higher education and pursuit of lifelong learning”

GRCC began using the space three days a week for its AMP program this fall. In January, WMU will offer courses for a certificate program in integrated design and manufacturing. In addition, manufacturing engineering technology, engineering design technology and engineering management technology courses will be offered at the facility for students enrolled in WMU’s ABET accredited four-year engineering technology degree program.

“At full strength, the space will be used for six to eight WMU undergraduate courses a semester with class sizes of 16 to 24,” says Dr. Steven Butt, WMU professor and chair of the industrial and manufacturing engineering management department. “GRCC will also be offering associate degrees and manufacturing courses. In addition to college courses, workshops, specialized trainings, product design and manufacturing consulting will occur in the space.”

John G. Kennedy, president of Autocam Medical, based in Grand Rapids, has been involved in programs to raise awareness for the education of and need for skilled workers—and for a facility that can lead to new ideas being developed for introduction into the marketplace.

“In addition to developing a skilled workforce, the AMP Lab has the potential to provide other important services to our region, says Kennedy. "This facility and graduate students, can help local inventors prototype projects."
Battery research project at WMU supports utility’s clean-energy plan
This fall, Michigan utility company Consumers Energy opened a large-scale battery facility on WMU’s Parkview Campus. The facility, which is unique to Michigan, stores enough energy from wind and solar sources to power 1,000 homes, and the clean-energy project will offer research opportunities for WMU students.

The Parkview Campus was selected as the site for the new battery facility through a statewide search conducted by Consumers Energy in collaboration with Michigan State University. In the coming year, the company and WMU consultants will study data generated at the facility to better the potential for battery storage use around the state. WMU engineering students also will have opportunities to participate in partnerships with Consumers Energy on electric battery research and operations.

A golden day of giving
On WMU’s second annual Giving Day, held Oct. 3, participants across campus, the state, the country and the world gave generously to support the Broncos initiatives of their choice.

Gymnastics posts second-highest GPA in the nation
WMU’s gymnastics team achieved the second-highest grade point average in the nation for the 2017-18 academic year, according to the Women’s Collegiate Gymnastics Association. As a team, the Broncos carried a 3.731 GPA, marking the seventh straight year WMU has finished in the top 10 nationally. Individually, 14 Bronco gymnasts earned Scholar All-America Awards. “Every year we set the bar high in the classroom, in the gym and in the community,” says Penny Jerjian, the team’s head coach.

Additionally, WMU once again had the highest GPA among Mid-American Conference institutions, marking the seventh straight year to lead the league. The second-place finish ties the 2013 season for the highest mark in program history. That season, the Broncos posted a 3.808 GPA.

Prestigious language scholarships send students abroad
A student awarded a prestigious federal scholarship is spending the academic year studying abroad in Brazil. Caitlin Wiley received a $20,000 David L. Boren Scholarship to spend the fall 2018 and spring 2019 semesters at the Federal University of Santa Catarina, where she is studying Portuguese.

And, just before fall semester began at WMU, engineering graduate student Joshua White wrapped up an eight-week summer course at the University of Shiga Prefecture in Hikone, Japan.

Joshua White
Joshua White was awarded a full scholarship to study in Japan under the U.S. Department of State’s Critical Language Scholarship program. The program is part of a government effort to expand the number of Americans studying and mastering critical foreign languages. Critical languages are those that are less commonly taught in U.S. schools, but are essential for America’s engagement with the world, according to the state department.

Caitlin Wiley
Caitlin Wiley was selected as one of 221 Boren Scholarship recipients out of 794 applicants from around the country to receive a 2018-19 academic year award. She and her fellow Boren Scholars are studying some 30 critical languages while living in countries throughout Africa, Asia, Central and Eastern Europe, Latin America, and the Middle East.

Wiley is an honors student double-majoring in Spanish and global and international studies and minorin in Latin American studies. In 2016, she studied abroad in Argentina and felt the impacts of economic and political crisis in that country. She chose to pursue a study abroad experience in Brazil to expand the depth and breadth of her Latin America expertise by studying Portuguese.

She has an intrinsic motivation for applying for the Boren Scholarships—her long-held public service ethos, which she developed after being introduced to federal public service in high school.

“I realized immediately it was the career path I wanted to pursue,” she says. “Since then, I have learned a lot about what it means to be a public servant through interning for a state representative and a U.S. senator.”

Wiley’s dream job is to become a foreign service officer. That dream just might come true, as Boren Scholarship alumni are fast tracked into federal careers after graduation.

Boren scholarships and fellowships, collectively known as the Boren Awards, are sponsored by the National Security Education Program. They are part of a major federal initiative aimed at increasing the number of U.S. citizens who possess foreign language and international skills. Scholars receive up to $20,000 while fellows receive up to $30,000, but all Boren Award winners agree to work in the federal government for at least one year.

I have learned a lot about what it means to be a public servant.
–Caitlin Wiley, a senior whose dream career is in the foreign service.
Harnessing the future of design

This fall, WMU unveiled a state-of-the-art facility for the University’s year-old product design degree program.

The Richmond Institute for Design and Innovation on the first and third floors of Central Kohrman Hall features studios, presentation spaces and laboratories dedicated to innovation, fabrication, rapid prototyping, 3D printing, woodworking and metalworking.

The nearly $7 million project to renovate Central Kohrman Hall to support the needs of an innovative product design program was made possible by many generous corporate and individual donors, including Jim and Lois Richmond.

The Kalamazoo-area couple, longtime WMU friends and benefactors who have a passion for the arts, contributed $3 million to the project.

“From my first days on campus five years ago, it was apparent that our local corporations had a great need for design talent,” says Daniel Guyette, dean of WMU’s College of Fine Arts.

“Just a few weeks ago, Lois and I had the honor of touring the building, which included getting a detailed description of each area and how students will use this creative layout working independently and in groups on design projects.”

A home for WMU’s product design program

The institute named for them is home to WMU’s new product design program, a degree that draws its curriculum from fine arts, engineering and business to develop professionals who will specialize in designing products that combine form, function and manufacturing.

Launched in fall 2017 with its first cohort of students, the program was created to meet current and future design and manufacturing needs in southwest Michigan and beyond.

The Bachelor of Fine Arts degree in product design combines coursework in the College of Fine Arts’ Frostic School of Art, the Haworth College of Business, and the College of Engineering and Applied Sciences. In addition to their University-based studies, students pursuing the product design B.F.A. are placed within industry settings during summer residencies with the anticipation that those positions will become permanent jobs after graduation.

“The product design curriculum mirrors contemporary design practice” says Michael Elwell, director of the institute and associate professor of art.

“The students take courses in design, engineering and business, teaching them to create products that are desirable, feasible and viable. Upon graduation, they will be able to speak the language of the designer, engineer and marketer, positioning them for future leadership roles related to project management.”

Southwest Michigan companies involved include Fabrikal, Eaton, Landscape Forms, Dwyer, Newell Brands, Whirlpool and Tekna. Bob Brown and the Monroe-Brown Foundation provided key initial funding, and area economic development agency Southwest Michigan First has been an important resource as well.

Elwell says the Institute has a wide range of corporate partners eager to work with WMU students. And the Richmond Institute will soon offer interdisciplinary courses that bring together students from across the University to work on problems through the lens of design.

“Interdisciplinary collaboration is essential to creating innovative design solutions,” Elwell says. “Students who take these courses will learn to appreciate the diverse ways their classmates approach problems, while gaining a new appreciation for their own discipline.”
A new study from an economic development organization and WMU has found that the University annually has a $1.6 billion economic impact on the local region. WMU President Edward Montgomery says WMU’s local economic impact is an excellent return on investment for Michiganders. "The University’s return of $1.6 billion to its local community is 15 times greater than the state’s investment in WMU. In fact, our total impact is greater than Michigan’s entire budget line for all state universities," he says.

In fiscal year 2016-17, the year of the study, the state invested $1.4 billion in all state universities, including $104 million for WMU. For every dollar the state invests in WMU, it returns $15.40 in economic vitality for the local region. The study also determined that WMU supports 16,690 direct, indirect and induced jobs in the local area.

"Imagine the home side of Waldo Stadium with every single seat filled. That’s how many jobs we’re talking about," says Ron Kitchens, chief executive officer of Southwest Michigan First and a member of the WMU Board of Trustees. Students have an impact during their time in Kalamazoo. Each WMU student adds $11,500 to the local economy. "It’s wonderful to see students in local businesses," Kitchens says. "They bring vitality to our community. But they also bring resources. When you see four students having brunch, that’s not just a $46 tab, it’s $46,000 each year in rent, groceries, checking accounts and entertainment. They contribute handsomely to our community as individuals and as citizens."

The study, conducted by Impact DataSource LLC, located in Austin, Texas, covered Kalamazoo, Calhoun and Van Buren counties.
“We had moved away from everything I knew. moved with her to Chicago to start a new life. when she was in fifth grade, and her mother A native of Detroit, Carr’s parents had divorced an average GPA. Colleges didn’t want me.” myself in high school, and I was on the cusp of seemed bleak. had applied to three universities. All three weeping, inconsolable. It was 1982, and she C MLK academy marks a milestone During a speech in October marking the 50th anniversary of the MLK program, alumna Carole Carr echoes the sentiments of other program participants, saying the program changed her life.

Carole Carr sat on a bus to Chicago, weeping, inconsolable. It was 1982, and she had applied to three universities. All three had rejected her application. The future seemed bleak.

“I was sad, angry and depressed,” Carr says. “I had moved away from everything I know. After that, I didn’t do well in school. I would doodle during math class. I wasn’t paying attention, and my grades slipped.” Then someone on the bus tapped Carr on the shoulder and changed her life.

“It was a minister, and when I told him why I was crying, he had advice for me,” she says. “He told me about the Martin Luther King Jr. program at Western Michigan University and encouraged me to apply.” Carr cried her tears and did just that. She was accepted to the program and was accepted in 1986, she graduated with a double major in marketing and interpersonal communication and a double minor in business communication and general business. Her honors at WMU included the highest GPA Award in the MLK program, and the Dow Chemical Marketing Scholarship. She also landed on the dean’s list.

“The MLK program changed my life,” Carr says. “Getting this second chance gave me an incredible drive to succeed. The structure and support this program provided students was amazing.” Carr later returned to WMU as a peer counselor at the MLK program. Now a successful real estate broker and investor in Atlanta, Georgia, she recently traveled to campus for a 50-year reunion of MLK program alumni to share her story. Hers is just one among thousands.

Since its inception five decades ago, in 1968, the MLK program has served some 7,000 students, all of whom had journeys similar to that of Carr—struggling in school, from a low-income family, and/or the first generation to attend college. A more important commonality, however, is they all had potential.

Starting Simply In 1968, Dr. Roger Pulliam, assistant vice chancellor emeritus at the University of Wisconsin-Whitewater, was the first director of what was then called Project 73 and would later become the Martin Luther King Jr. Academy. He explains that 1968 was the year organizers predicted their first students in the program would graduate.

“The Martin Luther King (program) was initially for 25 students. We wanted to expand on that, and when we turned to the W.K. Kellogg Foundation for help, they agreed,” he says. Pulliam’s own journey to become a student at WMU became something of a model for future students of the program. Born in Mississippi and eventually moving to Gary, Indiana, he grew up in a family of nine children, raised by an aunt after her mother died.

“Some of my brothers didn’t go beyond the sixth grade,” Pulliam says. “I was the lead dog when it came to education in my family, although some of my younger brothers did follow my lead to attend WMU. I came here on a football scholarship. I saw how important it was to be connected, to have those advantages of someone to support you and mentor you.”

Pulliam graduated in 1966 with an education major, went on to earn his master’s at WMU and a Ph.D. at the University of Michigan, but he would never forget the influence of WMU on his life. Along with a group of students from the Black Action Movement, who challenged racial discrimination at WMU, Pulliam wanted to create a program to increase racial minority presence among students and faculty. Project 73 began as a six-week program providing academic support and scholarships to 60 incoming students from southwest Michigan.

“We started simply by helping new students feel good about themselves and to broaden their world beyond their own communities,” Pulliam says. “We took them on trips to Chicago, New York, so that they could see the broad world beyond academics and athletics. We helped them transition to campus life and put them in the pipeline to graduation.” Pulliam was honored for his contribution to the University at the 50th reunion in October for MLK program alumni. He rarely misses an opportunity to revisit his alma mater or lend a helping hand.

“Without the MLK program and the support I received at WMU, I don’t know what I would have become,” Pulliam muses. “Programs like this are the greatest investment a university can make for kids with potential. We have to invest in all kids, not just those going to Harvard. Encourage them, create internships for them—there are many rich ways to expand our workforce.”

Results of the MLK program translate into success: 90 percent of student scholars complete and are retained each academic year. The cumulative GPA of participating students is 3.29.

Higher expectations, higher achievement As a high school baseball player in Pontiac, Michigan, John Rashid wasn’t held to high academic standards.

“We were required to have a 1.0 GPA,” Rashid recalls.

The expectations were much higher for WMU students and students in the MLK program.

“I was initially accepted for one semester at WMU with the agreement that I would get above a 3.0 GPA. I was enrolled in an educational boot camp as part of the MLK program, and I took three classes and did great. I was over that 3.0 GPA by my second year.” Rashid went on to earn his bachelor’s degree in business administration at WMU in 2001, and his master’s in organizational leadership the following year. In 2001, he was the winner of the Martin Luther King Jr. Program Award for maintaining high academic standards while being an active community service volunteer.

Continued on page 15
The MLK program has changed in some ways over the years while retaining the discipline, the encouragement, the mentoring and the support of its first years.

Sue Murray, assistant director of the program and the Division of Multicultural Affairs notes that it is now named the Martin Luther King Jr. Academy. In addition, what began as a summer bridge program for incoming students is now a four-tier program that guides students through every year of their education to graduation.

Once in the program, students meet regularly with staff and academy peer leaders. The first tier includes an introduction to campus life, academic course review and coaching, diversity and cultural programs, and academic process review.

"Our most common challenge in the first year is handling homesickness," Murray says. "One of our students recently brought his mother in to meet us after graduation. He wanted her to know where we were, and he heard was all good. But she said, 'I don't understand why you care so much.'"

"We don't officially keep records on our students after graduation and entrance into a profession," Murray says. "But I'd say the large majority keeps in touch," Murray says. "That gave me the head start I needed. It was rigorous and tough. It made me think about what I really wanted to do."

"People are why I support my school, all the people I've met along the way at WMU," Roberts says. "Larry Donston was also a native of Pontiac. He earned his bachelor's degree in engineering graphics in 1984 and credits the MLK program for his success.

"That first summer, I received a C grade in a class when I knew I deserved an A," he says. "I asked for help in approaching my professor to discuss it. It turned out the professor had accidentally picked up the grade from the next student below me in his records, and I got my A back!"

It's that kind of a helpful hand, Roberts says, that has made him a lifelong supporter of his alma mater and the MLK program. The bonds he developed with others in his years at WMU survive to this day, and he rarely misses an alumni event in the Detroit area.

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"I graduated from high school in June, and by the end of the month, I was already at Western Michigan University, part of the MLK program," Roberts says. "I had six kids in our household. Five went to college, but I was the only one to graduate."

One of the reasons Roberts felt he was successful in the program was because it connected incoming students with older students. He also points to the willingness of MLK program staff to help whenever and however needed.

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“Student Success is President Montgomery’s top priority, and by supporting students in their transition to Western, we’ll make WMU a campus of choice.” —Monica Liggins-Abrams
Cailla Rae Moss, a second-year student from Plainwell, Michigan, performs at marching band practice near Lawson Arena on Halloween. The skeleton face was an alternative to wearing a full costume. She painted her face that morning. "I had it on all day during Halloween. Everyone I ran into was really impressed," she said.

Scene on campus
They came, they saw, they conquered—or tried to. That was the game plan for many eager members of the campus and local community attending the Oct. 5 grand opening of the state-of-the-art WMU Esports Arena.

The event was held in two stages, with invited guests and news media swarming the facility for a morning gathering and students, alumni and many others filtering in during the afternoon open house.

Most of the visitors were as impressed by the arena’s rotating multi-colored lights, pro-quality sound system and seating for 196 spectators as they were by its sophisticated gaming computers and related technology. They included a trio of senior aviation technical operations students who saw a tweet about the event and decided to check out the new facility.

“I didn’t expect this, especially because it’s a normal, old-style theatre with some of the most sophisticated gaming equipment. But the arena is definitely amazing,” one of the students said from behind the gaming machine he was test driving at the open house.

“Coming in here is definitely mind boggling,” another member of the trio said. “Their attention to detail is outstanding. It’s incredible what we’ve actually use. It’s incredible what we’ve managed to build here.”

The WMU Esports Arena is located on the corner of Oakdale Drive and Oliver Lane in what was previously known as the Little Theatre. The facility now serves as home base for the Esports Club at WMU.

The club grew out of the University’s League of Legends registered student organization and is one of WMU’s formal sports clubs. But instead of putting on uniforms and taking to the court or turf, players don headsets and sit behind gaming machines, duking it out in the virtual world of online competitive video gaming.

Membership involves about 70 students, including coaches and fast-string players and substitutes for its five competition teams: League of Legends, Dota 2, Overwatch, Fortnite and Counter-Strike Global Offensive.

During events, players take to the facility’s stage, which is outfitted with 32 competition-level gaming machines. Webcam images project their faces onto screens attached to the front of each machine and tied into two large screens suspended above the stage. Spectators can follow gameplay by watching the screens, or, when a match is being streamed, watching on Twitch.

Behind the competition machines are 24 practice machines, allowing students to prepare for their contests. Each PC has its own ergonomic gaming chair, high-resolution monitor, headset, and special keyboard and mouse.

WMU has yet to open up the arena to spectators or intramural electronic game teams, but plans to do so soon. It also hopes to host invitational tournaments, most likely as ticketed events, and is exploring renting out the arena to high school teams and community groups.

In preparation for those types of activities, there’s a shoutcasting station at the back of the arena so spectators can be treated to a running commentary of all the action. Meanwhile, the background music and evolving colored lights heighten the gaming experience for both players and spectators.

A new community on campus

Together, the Esports Arena and club constitute the second of two transformational initiatives President Edward Puckett, esports director and a senior director of information technology, “This is something I can’t do so I appreciate it,” she said. “They take a whole lot of time out of their day to do better and improve. It’s a whole different type of sport, but I would consider it a sport.”

The importance of that dedication and skill-building to these students cannot be understated by Andre Ratray, WMU coordinator of club sports and esports.

“When you see esports, all you think about is someone playing a video game, whether it’s on a computer or console,” says Ratray. “These games provide different objectives, and those objectives provide different strategies. So there’s team building in there, there’s problem solving, team communication. All these things that we’re teaching them in the classroom are things they can be bringing here.”

Cameron McIvor, Esports Club vice president, describes it as advanced thinking. And he believes many people will enjoy watching WMU’s teams pit their skills against teams from other schools.

“I’d really like people to just show up and give it a try. Come and fully experience the arena,” she said. “They take a whole lot of time out of their day to do better and improve. It’s a whole different type of sport, but I would consider it a sport.”

Ratray, who didn’t make the team that they can still try to. That was the game plan for many eager members of the campus and local community attending the Oct. 5 grand opening of the state-of-the-art WMU Esports Arena. Backers of the initiative also anticipate esports will create jobs for students, from shoutcasters to IT technicians, and down the road could be incorporated into academics, such as for a broadcasting or software development class.

In addition, some note that esports aren’t all fun and games. One open house attendee in that camp is the president of WMU’s women’s soccer club. She noted that gamers practice for three hours, three times a week: watch their own and opponents’ “game films” to spot strengths and weaknesses; and are held to the same GPA and other requirements as the University’s other club sports teams.

“A few select students were fortunate enough to make the club team. When we tell people who didn’t make the team that they can still play here for intramurals, their faces just light up and glow,” says Mike Berdowski, coordinator of intramural sports.

“And very few universities in the nation have an arena like this. The majority of arenas you see that people talk about are essentially just glorified computer labs. We have a

in the ring and online
One of the earliest memories I have of my interaction with music occurred when I was 5 years old sitting in church. I remember the notes of the grand piano echoing off the walls and back into my ears. I watched as a woman behind a podium poured her voice into a microphone, and the congregation sang along with her. The voices of about 200 people resonated together as one voice. The sounds gave me goosebumps—a feeling of pure bliss.

I tried to sing along, my eyes glued to the hymn book, even though I didn't know how to read yet! In awe, I thought, “I want to sing like that and make people feel how happy I feel right now someday.” Throughout my childhood, the “magical” effect of music became even more meaningful to me.

As an adolescent, I began a battle with anxiety and depression. I marched to the beat of my own drum and often felt like an outsider. I eventually felt myself numb and bored with the mundanity of everyday life. However, I found an escape from reality in music. When listening to music, I traveled to new places, heard new stories and experienced intense feelings I didn't feel on a daily basis. In melodies and harmony, I found a world that was endless and intricate. The songs I loved resonated with feelings that lived deep in my gut.

Eventually, I realized how powerful it was to create music with my own voice. While I felt it difficult to express myself through words, singing translated my thoughts into something the world could understand. Music, particularly in the form of singing, gave me a sense of clarity and identity in a world that was often confusing. I chose to major in music as an undergraduate at the University of Illinois in Urbana-Champaign because it fascinated me more than any other subject. I was interested in working with the diverse populations such as individuals who are incarcerated, veterans with post-traumatic stress disorder, those in psychiatric units or mental health centers, hospice or medical settings, and older adults with dementia. I also found studying psychology and the brain intriguing.

While I had heard positive feedback from friends pursuing music therapy, my current college didn’t offer that major. I adapted and created a music degree that combined my two main interests: music, specifically vocal jazz, and psychology. My education included courses in areas that challenged and inspired me. Before graduating, I began applying to graduate schools where I could pursue a master’s degree in music therapy.

I was drawn to Western Michigan University because of the Brain Research and Interdisciplinary Neurosciences Lab—the BRAIN Lab—founded by Ed Roth, professor of music therapy. I also wanted to attend WMU to learn from Professor Roth’s expertise in working with clinical populations with experiences of trauma and/or mental illnesses. It only made sense to study music therapy in a program that emphasized musical interventions backed by scientific research.

Two years later, as the lab’s graduate research assistant, I have the opportunity to dive into research pertaining to the lab’s current interest in the social and neurological implications of improvisation. In addition, the lab nurtures research related to the physiological outcomes of musical experiences.

During my time in the program, I’ve become increasingly interested in the interpersonal dynamics of musical improvisation and how musical improvisation interventions can be used by music therapists to treat individuals with symptoms of social isolation or loneliness. With more insight into the neurological processes initiated by music, I am also interested in how musical experiences may be used to treat individuals struggling with drug addiction.

Music will always be a constant in my life—a modality I can rely on for relief and joy. I am grateful to merge my interests in the sciences of music and the mind in the music therapy program and at the BRAIN Lab at WMU.

Music therapy is a field that not only nurtures my interests, but allows me to provide services that benefit others who seek help. My experience has given me the opportunity to provide music therapy services to individuals with aphasia, dementia, Parkinson’s disease, intellectual and physical disabilities, Autism Spectrum Disorder and mood disorders.

Today, as an intern at the Seasons Hospice and Palliative Care in the Chicago area, I am learning how to effectively improve quality of life through music therapy for patients at the end of life. As I move closer to receiving my master’s degree, I am thankful for my professors and peers at WMU. They have helped develop my passion for pursuing the neuroscience of music and contributing to research that will better help music therapists effectively treat populations in need.
This can’t wait.
We need your voice.
Join the conversation.

A University Built
On Purpose

Think Big is WMU’s call for all students, faculty, staff, donors, alumni and community members to rethink and reimagine Western Michigan University.

The higher education landscape is changing. Students face new pressures and challenges that affect the way they choose a university and engage with their campus communities. While financial resources are often limited, options for how they learn, play and connect with others are virtually infinite.

Meanwhile, existing industries are evolving and new fields of expertise are emerging quickly, fundamentally changing the nature of work. Those who generously give to universities want to support causes that have a clear impact. And increasingly scarce research funding requires demonstrated value and expertise in order to attract investment.

WMU is a wonderful university today because of the forethought of those who came before us. Now is our opportunity to take advantage of a changing world and create the extraordinary WMU of tomorrow.

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Share your good thinking online and stay engaged throughout the Think Big process.

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A new master’s degree program in medical engineering at WMed equips students to advance health care through technology.

During a successful career that has spanned some two decades, Dr. Tycho K. Fredericks says his success as an educator and engineer can be traced back to a question he is never afraid to ask: Why do you do it that way?

“That’s the way I was trained,” says Fredericks, a professor in the Department of Industrial and Entrepreneurial Engineering and Engineering Management at the College of Engineering and Applied Sciences.

“There are always other ways to do things, and sometimes having outside eyes looking at something will help you do that.”

That philosophy is the engine behind the new Master of Science degree in medical engineering at the WMU Homer Stryker M.D. School of Medicine. The interdisciplinary, graduate-level program at WMed is for engineers and quantitative scientists with an end goal in mind—creating new medical devices and processes to improve health care.

The inaugural class began the new degree program in September.

For Fredericks, who serves as program chief and professor in medical engineering at WMed, the start of classes and the launch of the new curriculum are the culmination of what has been a seven-year process to implement a program that immerses students into the world of health care with a focus on the interface between medicine and engineering.

“Our mission is to train professionals and create technologies to improve health care,” he says.

During the master’s program, students will complete five courses at the medical school and three courses at WMU. In the first year, students will get the chance to choose a specialty track that fits best with their career goals.

That list includes biomechanics and biomaterials, biological signal processing, sensors, and instrumentation; or health care systems engineering. As part of their education, students interact with diverse groups of professionals, from engineers and clinicians to surgeons and residents, as well as nurses, medical technologists and business and regulatory experts.

Fredericks says a key component of the new master’s program is the first 15 weeks of instruction, which immerses students in health care and gives them an up-close look at the inner workings of clinical settings. That step, he says, is vitally important so that students gain a deeper understanding of the discipline of medicine and, in turn, can begin assessing and identifying where they can use their skills to improve processes and instruments.

Luke Swoboda and other students have been ensconced as observers in a variety of medical settings this semester, including during surgical procedures.

“I can’t tell you how to do the surgery,” says Swoboda, an alumnus of WMU’s industrial engineering program. “But I can look for areas for improvement as far as timing, efficiency, even instrumentation. I can look at how tools are currently used and how they can possibly be used in ways that are better for the surgeon and the patient.”

At the conclusion of the master’s program at WMed, students will take part in a final capstone, completing either a thesis or a medical engineering design project. The work by students, Fredericks says, will focus on “a real problem that’s scalable” and could focus on such things as improving the design of an existing product, or on processes that could reduce patient wait times, among other things.

Fredericks describes the curriculum for the new master’s program as “quasi-fluid” and says that it will be built around the students’ capstone projects.

“It’s customization for education, in a sense,” Fredericks explains. “For us, it’s about the student. You don’t dictate your agenda on the students; it’s more about helping them become the best version of whatever they’re going to be down the road. We’re going to help them learn the structure of health care.”

In launching the new program, Fredericks is supported by faculty at both WMed and WMU. Each faculty member brings to the table experiences that will serve students well.

“I can’t tell you how to do the surgery,” says Luke Swoboda, part of the first class of medical engineering students. “But I can look for areas for improvement as far as timing, efficiency, even instrumentation. I can look at how tools are currently used and how they can possibly be used in ways that are better for the surgeon and the patient.”
In 1967, the year Jim Richmond began his career at Stryker Corp., the company was grossing about $3 million annually. Last year, the company’s revenues topped $12.44 billion. "Innovation leads to problems being solved," says Jim, who himself holds 14 patents for medical device products he invented, knows the importance of creating a culture of cooperation in any company. "I see our company growing, and want to be a part of that," Jim says. "It gives you the opportunity to work on these exciting technologies, and to be a part of the solution." Jim believes the company’s success is a result of creating a culture of cooperation with efficiently and products that meet end-user needs are created more quickly. "Historically, there were islands in a corporation—engineering over here, marketing over there, manufacturing somewhere else," he says. "There is a move now toward greater cooperation across corporate departments. To be in high demand upon graduation—will have opportunities to intern and collaborate with those firms, driving the theme of cooperation the Richmonds believe is so integral to success. "Historically, there were islands in a corporation—engineering over here, marketing over there, manufacturing somewhere else," he says. "There is a move now toward greater cooperation across corporate departments. To be in high demand upon graduation—will have opportunities to intern and collaborate with those firms, driving the theme of cooperation the Richmonds believe is so integral to success. "Western has, in our view, become the best place for us to donate to," Jim says. "We want our gift to help the local community," Jim says. "We think the institute is going to be an asset to southwest Michigan for a long time."
Alumni selected for prestigious Detroit Symphony Orchestra fellowship

Michael Gause is one of two musicians nationwide picked as African-American Orchestra Fellows for the Detroit Symphony Orchestra’s 2018-19 season.

As part of the fellowship, the 2017 WMU graduate and trumpet player performs regularly with the Detroit Orchestra and in the community, is mentored by tenured musicians, and participates in mock auditions to gain experience in the competitive orchestra field.

“I’m truly excited to be playing alongside members of the Detroit Symphony Orchestra. The actual experience of rehearsing and performing is probably what I’m looking forward to the most,” Gause said before his season-long fellowship began.

“But my other duties, like observing some of the inner workings of the orchestra, assisting with community-engagement events and being mentored by members of the orchestra, are also very exciting things to look forward to.”

Inaugurated in 1990, the DSO’s African-American Orchestra Fellowship looks to enhance the career development of African-American orchestral musicians and, in the long term, the diversity of professional orchestras. Gause singled out his former instructors at WMU, Scott Thornburg, professor of music, and Dr. Robert White, associate professor of music, as being significant influences in his success.

“They are among the most influential people in my life thus far, musically and personally. Some specific things were my organization skills when preparing for auditions and the importance of my playing and commenting to always perform with a sense of musicality,” he said.

“The most memorable moments at Western were the opportunities I was given to play alongside the brass faculty. Hearing them perform was always a humbling experience and remains to be so when I go back for the occasional concert.”

Gause, a native of San Antonio, Texas, received a Bachelor of Music from the University of North Texas, a Master of Music from WMU, and is currently a Doctor of Musical Arts candidate at Western Michigan University. As a soloist, Gause has performed the Carnegie Hall Trumpet Concerto at AMU and was selected as a finalist in the National Trumpet Competition. Prior to receiving the DSO fellowship, he was appointed for his Trumpet position in the Youngstown Symphony in Youngstown, Ohio. He has also been awarded positions with the National Repertory Orchestra and the Aspen Music Festival.
The sociologist uses life history interviews and ethnographic observations to illustrate how immigration creates gendered work and family contexts for mid-20th-century American women, who, in turn, negotiate and resist the social and psychological effects of the processes of immigration and settlement.

Most of the women she interviewed migrated as dependents when their U.S.-educated husbands found professional jobs in California. In contrast to today’s undocumented immigrants, those women could not work outside of the home during the initial phase of their settlement. The significant contract of their lives before and after immigration—changing from successful professionals to housewives—generated feelings of boredom, loneliness and depression. Mourning their lost careers and lacking fulfillment in homemaking, these highly educated women generated feelings of boredom, loneliness and depression.

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