

University of Wisconsin-Milwaukee Research Initiatives

Key Facts about the University of Wisconsin-Milwaukee

- The University of Wisconsin-Milwaukee (UWM) is the second largest research university in Wisconsin and one of two doctoral-granting institution in the University of Wisconsin System. UWM has a national reputation for excellence in research, student experience, and community engagement.
- UWM contributes \$1.5 billion per year to the Wisconsin economy in terms of jobs, taxes and overall economic impact. This economic activity supports over 14,000 Wisconsin jobs and results in more than \$85 million in state and local taxes. Dollars spent by UWM, as well as its employees, students and visitors total about \$713 million annually and result in more than 29,000 jobs (not including the university's workforce). As important UWM contributes to the human capital that benefits both public and private sectors.
- Engaged research is a critical differentiator for UWM and is the cornerstone of UWM's top 5 focus areas, including:
 - Increasing student success in retention, graduation, student life experience both while at UWM and beyond
 - o Strengthening research capabilities and impact
 - Reinforcing community and alumni engagements through research partnerships
 - o Improving climate and culture and strengthening talent foundation
 - Elevating UWM's visibility as an engaged research university
- UWM's \$698 million 2014-15 operating budget includes \$255 million in federal aid, grants, and contracts. Research comprises \$62 million (\$19.7 million state funded) of the total budget. The university's 2013 full-time equivalent workforce, as listed in the budget, includes 822 faculty, 1,632 academic staff/limited appointment, 609 graduate assistants, and 1,110 classified staff.

University of Wisconsin-Milwaukee Vision for the Future

Since its founding in 1956, the University of Wisconsin-Milwaukee and its students, faculty, staff, and partners have had remarkable impact in terms of research progress, community partnerships, cultural enrichment and alumni contributions. Looking forward, the University faces unprecedented challenges, including enrollment and funding declines, changing demographics, student debt loads, and questions about the role, value, and future of higher education.

To enable a strong and vibrant future, UWM developed an ambitious and comprehensive strategic plan to transform into a powerful public research university that generates lasting change. The planning activity identified five focus areas critical to UWM's future.

UWM FOCAL AREAS

• Successful Students: Graduate highly educated individuals at all degree levels, from undergraduate to doctoral

UWM will make learning accessible and affordable at every age and stage of life. As a research university, UWM will provide students from their first year through post-doctoral studies opportunities to enhance their education through research, internship and international learning opportunities. The University will engage more students in these enriching activities, develop new programs, and improve the academic success of our students with the goal of graduating students who are highly engaged and invested in our communities.

• Research Excellence: Generate discoveries and scholarly outcomes that are recognized within the global research community and that have an impact on society, locally to globally

UWM's nationally and internationally recognized research programs produce discoveries and new knowledge from UWM's research labs, students' real-world learning experiences, and collaborations from across the street to across the globe. The University will increase its partnerships to collaborate on the next generation of inventions; enhance undergraduate retention and completion rates by engaging them in research; and commercialize innovations via the UWM Research Foundation through collaborations and partnerships. Finally, by immersing UWM students at all levels in research activity, we will graduate better educated and highly-trained students who contribute to the prosperity of the community.

• Community Engagement: Deepen our positive impact in the city and region through community and business partnerships

UWM's 700-plus partnerships throughout the area led to its designation as one of the nation's Top 25 "Saviors of Our Cities" universities, a ranking that recognizes academic institutions actively engaged in promoting the overall quality of life, culture, and the economy of the city and region. The University will expand on

this history to deepen its engagement through community-based research, service learning, entrepreneurial opportunities, alumni engagement, Panther Athletics and events.

• Inclusive and Innovative Culture: Foster a culture that embraces innovation, creativity and diverse perspectives within an inclusive environment for all faculty, staff and students.

UWM needs a healthy climate that attracts and retains the talented faculty, staff and students required to achieve the three strategic goals outlined above. In alignment with our campus vision statement, UWM will be a best place to learn and work for all campus community members. We will support innovation and creativity in research and education; value diverse perspectives and intercultural knowledge; and provide an inclusive environment for all members of the campus community.

• UWM's Visibility as an engaged public research university

UWM's visibility within Wisconsin has increased markedly over the last 15 years, providing a solid basis for elevating the University's reputation for research and educational excellence. Strong performance in research and its applications to regional issues have enhanced the preparation of our students for their careers through research activities, problem-based learning, and community and business internships.

UWM's Research

Research expenditures reflect research productivity and reputation of UWM's faculty in areas where such funding is available. Annual research expenditures increased by 77 percent from 2003 to 2015—from \$35 million to \$62 million—and additional funding is being sought.

Moving forward, multi-disciplinary research will be a critical component to growing UWM's research growth. Several thematic areas have emerged based on the University's research strengths and opportunities to work with regional collaborators.

- Water: The School of Freshwater Sciences and the regional Water Council represent two components to Southeastern Wisconsin's water cluster. Water-themed research and education are inherently collaborative and include topics as diverse as aquaculture, systems studies of natural systems, freshwater genomics, emerging toxins, and biosensors. All involve maintaining the health and sustainability of our most critical resource: freshwater.
- **Energy:** The College of Engineering and Applied Sciences (CEAS) are working with a variety of regional corporate partners on energy systems, most notably energy storage (battery technology), energy distribution systems (microgrids), alternative fuels (renewables), and the development of enhanced control systems and transportation networks.

- Advanced Manufacturing: CEAS and the Lubar School of Business have a common interest in developing smarter control systems for manufacturing. They work closely with various corporate partners to design and test solutions for practical problems by enhancing the efficiency and flexibility of business operations.
- **Food and Beverage:** Wisconsin is home to a diverse cluster of food and beverage industries, which have joined with research institutions to create a regional partnership to address issue of urban agriculture and nutrition. The goal is to develop, implement, and advocate for solutions addressing urban America's lack of access to and knowledge about nutritious food while training the future workforce based on shared values of a healthy food system. At least eight UWM Schools and Colleges are involved in this research initiative, along with the development of new academic programs.
- **Health and Biomedical:** The most diverse multi-disciplinary research area is in health and biomedical research. The regional Clinical and Translational Science Institute provides a multi-institutional infrastructure for ongoing collaborations with our medical and academic partners. UWM is a major contributor in areas such as neuroscience and neurodegenerative disease, immunology, aging, community and public health, and biomedical engineering. In addition, the Innovation Campus provides us a new venue for collaborations between UWM and its partners at the Regional Medical Campus.
- **Digital Humanities:** One of UWM's newest facilities is the Digital Humanities lab (located in the Golda Meir Library). It was designed to be an interdisciplinary, collaborative space for exploring digital humanities, investigating new approaches, and facilitating new research questions using the power of digital data. This initiative will also train students in the use of "big data" that is transforming everything we do.

About UWM

UWM's vision for the future will build upon the many transformations during the university's 59-year history. UWM has advanced its reputation for research excellence, is graduating high-quality students, and is known for its work with the Milwaukee community.

Academic Programs: UWM is home to outstanding departments, academic centers, institutes, and laboratory facilities with worldwide reputations for innovation and excellence. UWM's 190 degree programs include 94 undergraduate degrees, 60 master's degrees, 1 specialist, 34 doctoral programs, and two professional practice doctorates, through 14 schools and colleges: Architecture and Urban Planning, Peck School of the Arts, Sheldon B. Lubar School of Business, Continuing Education, Education, Engineering and Applied Science, Freshwater Sciences, Graduate School, Health

Sciences, Information Studies, Letters and Science, Nursing, Joseph J. Zilber School of Public Health, and Helen Bader School of Social Welfare.

Highly regarded professional schools and colleges broaden and deepen the academic quality of UWM. Three schools at UWM have academic program offerings that are unique within the University of Wisconsin System: Architecture and Urban Planning, Peck School of the Arts and Freshwater Sciences.

Academic programs are built around the theme of integrated teaching and scholarship. The same faculty members who provide the foundation for the master's and doctoral programs regularly teach and work with undergraduates. This joint commitment creates a robust undergraduate research environment and opportunities for structured engagement through the Office of Undergraduate Research and the McNair Program among others. Noncredit instruction and technical assistance services reach more than 15,000 people annually through the School of Continuing Education, which also provides certificate programs in a wide variety of topics for business, early childhood, engineering, human services, project management, non-profit management and water technology.

Students: In Fall 2014, UWM enrolled 28,042 students—23,108 undergraduates and 4,934 graduate students. UWM is the second largest graduate degree-granting institution in the state, enrolling 3,055 master's students, 1,441 doctoral students and others in specialist and non-degree programs. Milwaukee's largest university enrolls more Wisconsin residents than any other four-year university, yet also enrolls students from all other states.

Diversity: Each year, UWM grows its diversity in many ways: Already UWM has the largest enrollment of underrepresented students of color (more than 6,400) in the University of Wisconsin System

UWM enrolls more than 1,560 international students. To help further grow its international enrollment, UWM has expanded its recruitment efforts with a special emphasis on drawing more students from China, South Korea, Taiwan and Brazil.

UWM educates more individuals age 30 and older than all but one other UW System institution, and enrolls nearly one-third of all UWS students who are age 60 and older.

There were 1,238 students attending UWM in 2013-14 who received state and federal veterans benefits—the largest total in the UW System.

Faculty, Research and Scholarship: At its core, UWM is a highly engaged community of faculty, staff, and students committed to learning, discovery and creative expression. Multiple areas of excellence are present in many units within the arts and humanities, social sciences, natural sciences, and professional schools across the campus. UWM is a premier doctoral research university and is intent on increasing the level of extramural support and the number of doctoral programs, enhancing the ratio of graduate-to-

undergraduate students, and continuing to increase the quantity and quality of research and scholarship.

The University of Wisconsin-Milwaukee recognizes faculty members determined to be at the pinnacle of their careers with the designation of being a UWM Distinguished Professor. All have had significant impact on their fields of study. With remarkable productivity, international reputations, and glowing testimonials from peers, UWM Distinguished Professors continue to make significant scholarly contributions to their disciplines. Of the 49 professors who have achieved this status since it was first instituted in 1973, 27 remain on the faculty and continue in their leadership roles.

Members of the UWM faculty actively seek support from distinguished federal funding resources, chief among them the National Science Foundation and National Institutes of Health. The great number of awarding agencies is another indicator of the breadth of research done at UWM.

Currently, UW-Milwaukee professors and researchers are principal or co-principal investigators for 114 active initiatives awarded across a wide spectrum of National Science Foundation Directorates including:

- Mathematical & Physical Sciences (49),
- Social, Behavioral & Economic Sciences (5),
- Geosciences (7),
- Engineering (20),
- Biological Sciences (11)
- Education & General (8).
- Freshwater Sciences (11)
- Health Sciences and Public Health (3)

UWM professors and researchers are also principal investigators for 100 different research programs funded over the past three years by these agencies of the National Institutes of Health and others:

- Aging,
- Allergy and Infectious Diseases,
- Child Health and Human Development,
- Deafness and Other Communication Disorders,
- Drug Abuse,
- Environmental Health Sciences,
- Heart, Lung and Blood,
- Mental Health,
- Neurological Disorders and Stroke,
- Nursing Research and
- Research Resources.

Partnerships and Engagement: UWM has a substantial history of collaboration and partnerships, including research and community service. This has set UWM apart and is a

strong tradition that will continue as UWM strengthens and further connects its critical work to increase student success, bolster research capabilities and their impact, and expand engagement and partnerships.

Most notably, UWM has been named among the nation's top universities for community engagement by the Carnegie Foundation. This is significant recognition of the impact UWM students, faculty and staff have created through their engagement with the university's many communities.

This recognition demonstrates the impact UWM has far beyond its campus. And thus, the designation is about both building success in academics and life preparedness for students. The classification also is about creating vibrant, collaborative partnerships with economic and social impacts throughout UWM's larger communities locally, regionally, nationally and globally.

UWM's 700-plus partnerships throughout the Milwaukee area led to its designation as one of the nation's Top 25 "Saviors of Our Cities" universities by the Coalition of Urban and Metropolitan Universities, a ranking that recognizes academic institutions actively engaged in promoting the economy, culture and overall quality of life in their home cities. This involvement is evident in the 46,000-plus hours of annual community service that engage UWM faculty, staff and students in partnerships that enrich the metropolitan area.

This relationship between UWM and Milwaukee has been a defining feature in the University's past success and in defining its future goals. The 1986 community-based report "UWM & the Future of Metropolitan Milwaukee" articulated and strongly endorsed the need for "a major, doctoral research university as a powerful and necessary resource" for the people of the region to take charge of their future. The report argued that only a commitment to excellence would inspire and support the University's high-impact research, its mission to provide access to high quality education, and its deep engagement with Milwaukee's metropolitan communities.

UWM's ongoing commitment to excellence has guided its development as a researchintensive university that is "a leading driver for sustainable prosperity" the region. The combination of UWM's urban location and research excellence allows us to build collaborations and partnerships that are unique in Wisconsin. UWM's engagement with Milwaukee attracts top faculty and students who conduct research on social and organizational issues, environmental quality, K-12 education and health care/public health; make direct contributions to the cultural vitality and well-being of their communities through the arts; and share their expertise by working with community and governmental organizations.

UWM Graduates and Impact: UWM graduates more than 5,400 students annually. Living university graduates now total nearly 160,000. UWM alumni are increasingly distributed around the world and reside in over 90 countries. More than three-quarters of those living in the USA reside in Wisconsin. UWM alumni serve as corporate CEOs and teachers, government leaders and architects. One is a three-time Academy Award winner and another, Satya Nadella, is the CEO of Microsoft Inc.

UWM graduates provide the talented workforce that will attract new innovative businesses and retain existing firms in the region and connect the city to global networks and perspectives. UWM prepare graduates for productive careers by incorporating the research and entrepreneurial activities made possible by the university's urban setting into academic programs.

UWM Research Growth and Impact

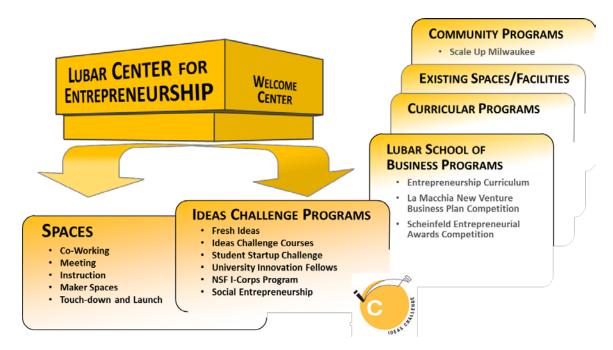
UWM is a changing institution. Building on fundaments that have made the institution successful for more than a century, UWM is pursuing new pathways to propel discovery, development and deployment of ideas and talent.

UWM Research Foundation: Launched in 2006, the UWM Research Foundation (UWMRF) provides UWM a locally focused organization to support partnerships and commercialization of ideas. UWMRF brings together UWM's thought leaders to accelerate the pace of discovery and deployment of ideas, helping create innovators and entrepreneurs, and making it easier for research scientists and students to bring ideas to market through licensing agreements and new ventures.

UWMRF has built infrastructure to manage intellectual property and maximize its value through marketing and licensing efforts.

UWM has a broad portfolio of strengths in the arts, humanities, sciences, and engineering. Annual research spending of approximately \$60 million includes research in water, energy and healthcare, and builds on expertise in advanced materials, sensing platforms, nanotechnology, software, healthcare informatics, and many other areas. These strengths span UWM schools and colleges and are closely linked to the needs of regional partners.

The UWMRF Catalyst Grant Program provides seed funding for promising ideas with strong potential for commercialization and helps to stimulate a culture of innovation. Since its inception the Catalyst Grant Program has made 74 awards totaling more than \$3.8 million. The selection process focuses on both strong science (judged by external reviewers) and high commercialization potential (including intellectual property, partnerships and potential for startup companies). The sustained support for the program is having immediate impact on the ability of UWMRF to cultivate researchers and opportunities. These awards have led to nearly \$14.5 million in follow on investments in UWM technologies, including investments in early stage companies, SBIR grants, corporate development resources for licensed technology and sponsored research support to UWM researchers. These grants led to 37 issued patents, and contributed to the nine early stage companies that are now operating with UWM licensed technologies.



Lubar Center for Entrepreneurship and Welcome Center. In 2015, UWM announced the creation of the Lubar Center for Entrepreneurship made possible thanks to the generous \$10 million gift from Sheldon and MaryAnn Lubar.

The Lubar Center for Entrepreneurship at the University of Wisconsin-Milwaukee (UWM) will help transform UWM's role in the Milwaukee Region, creating a focal point for education and programs that impact students, businesses and the region's economy.

Entrepreneurship programs nationwide have taken new directions building on the notion that new enterprises are not simply small versions of larger established companies. Instead, entrepreneurial enterprises search for new opportunities to fill unmet needs in the marketplace. This insight has given rise to structured programs that focus on a process of customer discovery and led universities to develop new ways to engage a wide array of students and faculty.

Through the Lubar Center for Entrepreneurship, UWM will engage cross section of the campus community to strengthen and expand entrepreneurship programs building on strong curriculum in the Sheldon B. Lubar School of Business. These programs engage both faculty and students from disciplines that include business, engineering. science, the arts, and humanities. This broad-based approach will help bring UWM discoveries to market and create new enterprises to strengthen our economy.

But the goals of these efforts go beyond new startup companies. These programs will provide UWM graduates with important skills – whether they go on to work for established companies in the Milwaukee region or start their own companies. In addition, UWM faculty will benefit from new ways of identifying opportunities and promising research directions.

Ideas Challenge Programming. Building on the success of programs like the UWM Student Startup Challenge, UWM is creating new programs and consolidating existing efforts under the umbrella of "Ideas Challenge." Ideas Challenge is intended to engage students across campus – including those in disciplines where a "startup company" might not be the appropriate end point but who would benefit from the broader concepts of identifying opportunities and finding new ways to add value. This may include "social entrepreneurship" where concepts from new enterprise formation are applied to ventures such as non-profits to help develop sustainable models.

Ideas Challenge includes curricular programs (by adapting existing classes), builds on cocurricular programs (such as the Student Startup Challenge) and adds to existing extracurricular programs (including new ventures business competitions in the Lubar School of Business).

The Student Startup Challenge is a unique co-curricular program that pairs student entrepreneurs who have a promising idea with a larger group of students enrolled in various interdisciplinary courses. This "ripple effect" brings together a broad group to build prototypes and develop a business model within the structure of academic classes. The student entrepreneur can either be enrolled in the class or act as an external sponsor. This structure has made it possible to attract input from many disciplines on campus.

The program is distinct from a business plan competition because it awards support on the strength of an idea. Teams from across the campus pitch their ideas, and the winning concepts receive up to \$10,000 in support to turn their ideas into products. Funding comes with "strings attached" to provide a structure for entrepreneurs to refine proposed products and develop their go-to-market strategy. Now in its third year, the program has expanded to support more students and different types of enterprises through the addition of different "tracks" that include hardware, mobile applications and a new social innovation track.

NSF I-Corps Program. The National Science Foundation (NSF) developed the Innovation Corps (I-Corps) program to help accelerate the transfer of academic research into the marketplace. They teamed with leading entrepreneurship educators to apply the Lean Launchpad (LLP) methodology to help faculty-based researchers understand markets for their technologies. In April 2015, UWM and the UWM Research Foundation were awarded a grant from the NSF to bring this important program to Milwaukee, creating the first I-Corps site in Wisconsin.

Led by the University of Wisconsin-Milwaukee, the site's partners include Marquette University, the Medical College of Wisconsin (MCW), the Milwaukee School of Engineering (MSOE) and Concordia University of Wisconsin. The site will bring the proven I-Corps model of commercializing innovation to Milwaukee and will be a powerful complement to Milwaukee's evolving entrepreneurial ecosystem. Teams will be guided through a Lean Launchpad program that focuses heavily on the "customer discovery" process and lead to a go/no-go decision at the end of the eight week program. Teams that proceed to form new ventures will be connected with mentor networks and investors. All of the program participants, even those that don't go on to form companies, will help create an expanding network of people trained in the LLP process, helping strengthen the innovation ecosystem at UWM and in Milwaukee. This three-year program seeks to train 90 entrepreneurial teams in the LLP methodology.

University Innovation Fellows. In 2013, UWM was one of a dozen universities nationwide take part in a Pathways to Innovation Program sponsored by the EpiCenter program at Stanford University. Building on the EpiCenter program, UWM students were selected to be University Innovation Fellows. These UI Fellows take part in training with students from across the country and attend workshops in Silicon Valley companies such as Google and Apple.

The UI Fellows are charged with becoming change agents on their campus. UWM now has more than ten UI Fellows. This group is organizing and delivering the Fresh Ideas program described below. In addition, they helped bring a 3-Day Startup event to campus that put students through an intense weekend where the proposed ideas, formed teams, talked with customers and presented their concepts to a panel of judges.

Faculty Innovators: UWM faculty members provide a rich source for discovery. They are finding new ways to bring their work to the world through startup companies, research partnerships, and technology licensing, activities that are enhancing their roles in education and innovation.

Sleep Environment Innovations, LLC

A UWM Associate Professor in the College of Nursing, designed a novel infant sleep pod called the NightOwl Sleeper (www.sleepei.com), which maximizes parents' peace of mind when sleeping next to their baby. The design, supported by a UWMRF Catalyst Grant, keeps the baby from rolling off the bed, parents from rolling onto their baby, and blankets and pillows off the baby's face. Smart position monitoring warns parents of any unsafe infant sleeping conditions. The professor is working to bring the product to market with the help of a grant from the UW Extension Ideadvance program, which supports the customer discovery process.

TheraBracelet

Midwest startup company TheraBracelet is developing a wearable device to improve the sensation of touch in stroke survivors who wear it. The technology stemmed from the innovative research of a UWM Assistant Professor in Industrial Engineering and Manufacturing and is being developed in partnership with UWM and the UWMRF. The company has completed a license option agreement through the UWMRF and a clinical testing is planned for the product in early 2015.

Organic Research Corp and its Digital Liver Pathology Aid

UWMRF, in partnership with the Medical College of Wisconsin, has licensed the Digital Liver Pathology Aid software to a new Wisconsin startup company Organic Research Corp. The company was founded by a computer sciences graduate, who conducted thesis work at UWM to create this software for detecting non-alcoholic fatty liver disease. The project was previously supported by the UWMRF Catalyst Grant and has recently received an Ideadvance Seed Fund through UW System Extension made possible with help from the Wisconsin Economic Development Corporation.

Center for Advanced Computational Imaging

The Center for Advanced Computational Imaging is the latest example of an innovative partnership between UWM and industry. GE Healthcare has joined other strategic partners in helping create resources to serve healthcare, energy, water and other industries.

As UWM grows its research base, partnerships and entrepreneurial footprints the university is expanding its reach through collaborative academic and research facilities.

UWM Facilities

The University of Wisconsin-Milwaukee main campus on Milwaukee's East Side features 65 buildings totaling more than 5.6 million square feet. The main campus, sometimes referred to as the Kenwood campus, is compact, with all buildings within easy walking distance. The Alumni House and Hefter Conference Center are nearby.

Signature facilities near the main campus include Kenilworth Square, a multi-use complex just one mile south of campus in a vibrant retail area. Kenilworth has been redesigned in an innovative \$68 million public/private venture including student housing, Peck School of the Arts studios and performance spaces, and retail and commercial space. Located in downtown Milwaukee, the School of Continuing Education houses the non-credit program, outreach, and conference operations. Nearby in the Chase Bank Tower is WUWM - Milwaukee Public Media, the university's radio station that broadcasts content from National Public Radio, Public Radio International and American Public Media locally at 89.7FM and worldwide at www.wuwm.com.

About 30 miles north of campus, the UWM Field Station is a College of Letters and Science research unit situated in a scientifically significant property of approximately 300 acres. It is adjacent to the 2,500 acre Cedarburg Bog, an experimental ecological reserve.

Expansion of Research/Academic Facilities: UWM is engaged in a multi-year planning and implementation process to support the expansion of research and enrollment growth. UWM is moving building projects forward on the different campuses that will support expansion in the areas of engineering and science, freshwater science, and public health.

Innovation Campus. Across the street from the Milwaukee County regional medical complex is UWM's 72-acre, next-generation technical campus, where UWM researchers collaborate and share ideas with nearby medical professionals. The first building on the grounds, the Innovation Accelerator, opened in the spring of 2014 and includes space for faculty conducting research that will lead to products that solve health care problems.



Capabilities such as the Advanced Prototyping Facility help these researchers come together on a wide range of new solutions.

This facility anchors a growing list of future partners and facilities at Innovation Campus that will eventually include facilities for people to live, learn, work and play. Plans also call for more corporate research buildings to join partners such as ABB, Inc., already on the grounds.





School of Freshwater Sciences Research Building: Located on the university's Harbor Campus, the facility offers unparalleled access to Lake Michigan as a classroom and laboratory. A \$53 million renovation and expansion, which opened summer 2014, provides students, faculty, and scientists with state-of-the-art teaching and research facilities.

The School of Freshwater

Sciences is made up of 21 research laboratories including: the Center for Water Policy, the Great Lakes Genomics Center, and the Great Lakes Aquaculture Center. We also house offices for the University of Wisconsin Sea Grant, Wisconsin Department of Natural Resources and U.S. Department of Agriculture, as well as the U.S. Environmental Protection Agency's Lake Guardian vessel.

Kenwood Interdisciplinary Research Complex: This new gateway to East Side Campus opened in the Fall of 2015. The 144,000 square foot complex will provide academic and interdisciplinary research space for disciplines in science, technology, engineering and mathematics and create a new home for the Department of Physics. The collaborative space has areas for the Zilber School of Public Health and the Department of Chemistry.



Conclusion

The successful campus of the future will evolve substantially to meet the changing demands facing higher education. UWM's long-range plan with five strategic goals and the present five focus areas will contribute to greater student retention, learning, and graduation rates, along with more successful contributions in their chosen fields. Organizations employing UWM students, the community, and research fields will all be enhanced by the strengthening of UWM. The University's faculty and staff also will be strengthened with a culture and productive environment enabling research, teaching and service outcomes to achieve greater levels of excellence. The city, region and state will benefit from more graduates who can make greater contributions in their chosen occupations and professions, and from a University which contributes as an economic engine to our community through our research and engagement.