

UNIVERSITY OF MISSOURI-ST. LOUIS (UMSL)

**Boilerplate Information for Papers, Proposals, and
Presentations**

2023

GENERAL INFORMATION

Below are general summaries about various aspects of the University of Missouri-St. Louis (UMSL). Other information about UMSL and its Colleges and Research Centers can be found on the UMSL website at: <https://www.umsl.edu/>.

Mission: The University of Missouri- St. Louis is driven by its powerful mission to transform lives.

Vision: The University of Missouri–St. Louis will be a beacon of hope, a force for good, and a leader in the pursuit of excellence in education, impactful research, and community service. UMSL boldly asserts that education is for everyone who is willing and able to pursue it and honors the duties inherent in the University’s land-grant beginnings by embracing the search for knowledge, progress, and positive change for ourselves, our communities, and our world.

Established: Founded in 1963, the University of Missouri-St. Louis is eastern Missouri’s premier public metropolitan research institution. A land-grant university situated in the heart of northern St. Louis County, UMSL provides Missouri’s most culturally diverse, economically dynamic region with outstanding educational, research, and engagement experiences that have prepared and inspired over 110,000 alumni to date.

A Storied History: When the citizens of Normandy, MO passed a bond allowing Normandy School District officials to purchase the Bellerive Country Club for \$600,000 in 1957 for a community college site, the plan was locally criticized as a "speculative venture." Despite this criticism, a bond issue was passed to buy the 128-acre tract of land that included a club house, golf course, swimming pool, volleyball and tennis courts, and lake. Two years later, in September 1960, the two-year Normandy Residence Center opened for classes. Enrollment totaled 215 freshmen, who squeezed into 12 classrooms in the old clubhouse. Four full-time and eight part-time faculty were provided by the University of Missouri. After three years of operation as a residence Center, the Normandy School District and the university reached an agreement for the university to purchase the property and assume operation of the center. In September 1963, the Normandy Residence Center became the University of Missouri-St. Louis.

The foresight of the people involved in that "speculative venture" has been substantiated by time. Today, the University of Missouri-St. Louis has an enrollment of more than 17,000 students, making UMSL the second largest of the University of Missouri System’s four campuses, the largest university in the St. Louis area, and the third largest in the state. On what was once the site of a country club with a single building, UMSL has grown to a campus of more than 50 buildings and structures situated on over 470 acres. Via Metrolink stops on both the South and North Campuses, students have direct access to the numerous educational, cultural, social, shopping, entertainment and sports complexes in St. Louis County and in Downtown St. Louis. Far from its humble beginnings, UMSL offers a full campus life experience to students from St. Louis and around world, including students from some 100 countries.

ENVIRONMENT

The University of Missouri-St. Louis is eastern Missouri’s premier metropolitan, public research institution. Recognizing its commitment to research, the State of Missouri has designated UMSL one of the four research universities of the [University of Missouri System](#) along with the University of Missouri-Columbia (“Mizzou”), the University of Missouri-Kansas City, and the Missouri University of Science and Technology (formerly the University of Missouri-Rolla).

UMSL carries a Carnegie R2 classification—Doctoral University with High Research Activity—and enjoys national recognition as a leader in a wide variety of fields, including biology, optometry, psychology, supply chain management, nursing, cybersecurity, and criminology. UMSL offers more than 200 degree and certificate programs across eight colleges and schools: The College of Arts and Sciences, the College of Business Administration, the College of Education, the College of Nursing, the College of Optometry, the Pierre Laclède Honors College, the School of Social Work, and the Graduate School.

UMSL is proud to serve one of the most diverse student bodies in the region, hosting students from around the city, county, state, and Lower Midwest, as well as enrolled undergraduates and postgraduates from across the country and around the world. Accredited by the Higher Learning Commission (HLC), the University awards bachelor's, master's, and doctoral degrees, as well as certifications in a diverse array of fields.

UMSL is nationally recognized for its role in increasing social mobility for low income and first-generation students. In 2022, UMSL placed competitively on the US News list of “Top Performers on Social Mobility,” ranking first in Missouri and 75th nationally, an improvement of 25 places over the previous year's rankings. Recognizing the University's potent combination of quality and affordability, US News also included UMSL on its list of Best Value Schools, where it ranked fourth in the state and 105th nationally.

As the premier metropolitan public research institution in the St. Louis region, UMSL faculty work across disciplines to confront urgent global and community challenges ranging from the mass incarceration and opioid addiction crises to Alzheimer's and cancer. Nationally ranked programs and award-winning faculty form the foundation of the University's eight colleges and schools, providing each student with high-quality, diverse educational opportunities. The University's Carnegie R2 designation of High Research Activity helps ensure competitiveness with the country's top public institutions of higher learning.

UMSL faculty have garnered national recognition as leaders in a wide array of fields, including criminology, biology, psychology, chemistry, philosophy, and business. With grant expenditures of over \$43 million in 2023, the University continues to demonstrate its commitment to results-oriented innovation across the disciplines.

As a metropolitan land-grant institution, UMSL serves a critical role in preparing the workforce of the future, enhancing economic development, strengthening communities, fostering inclusion, and extending the reach of the university to citizens in all corners of the state and beyond. This impact is consistently recognized by UMSL's designation as a community-engaged institution by the Carnegie Foundation for the Advancement of Teaching – one of only 119 such institutions in the U.S to receive this prestigious designation in the most recent cycle.

PRIDE POINTS

- ★ UMSL is a Tier 1 national research university, according to *U.S. News & World Report* – ranked **No. 107 among public universities**.
- ★ UMSL is one of the **most culturally and ethnically diverse campuses** in Missouri, enrolling nearly 15,000 students from across the nation and world.
- ★ More than **1,200 Pell Grant eligible students earn UMSL degrees** every year as a result of increased investment in support services and need-based financial aid.
- ★ UMSL has **issued more than 125,000 degrees** to more than 110,000 individuals – 75% of whom live and work in Missouri.

- ★ *Military Times* has named UMSL to its "**Best for Vets**" list for eight consecutive years and UMSL was named a "**Top Veteran-Friendly School**" by *U.S. Veterans Magazine*.
- ★ A **dual AACSB accreditation in business and accounting** places our business school in the top 2% internationally.
- ★ *Value Colleges and Top RN to BSN* both ranked UMSL nursing's online RN to BSN program among the **top 50 nationally**.
- ★ UMSL's Whitney Harris World Ecology Center is **the nation's largest and most diverse program in biology conservation**. Academic and research partners include the Missouri Botanical Garden and Saint Louis Zoo.
- ★ *U.S. News and World Report* has ranked UMSL No. 1 in Missouri for "**Best Online Bachelor's Programs**" in 2020.
- ★ *Washington Monthly* ranks UMSL as one of America's "**Best Colleges for Student Voting**" proving UMSL students are actively engaged in issues that matter in St. Louis and across the country.
- ★ *CEO Magazine* has ranked UMSL's Doctor of Business Administration program as a "**Premier DBA Program**" for five consecutive years.
- ★ More than **94% of UMSL's most recent graduates are employed**, volunteering or continuing in higher education post-graduation.
- ★ UMSL is a **six-time recipient** of the Higher Education Excellence in Diversity Award from *INSIGHTS into Diversity* magazine – the oldest publication specializing in this area.
- ★ A **record 158 student athletes** earned Academic All-Conference honors from the Great Lakes Valley Conference.
- ★ *Forbes Magazine* named UMSL one of "**America's Best Colleges**" based on the things that matter most to students: quality of teaching, great career prospects, graduation rates and low levels of debt.
- ★ *Business Insider* ranked UMSL **No. 1 in Missouri for affordability**, proving that UMSL students enjoy the best educational value in the state.
- ★ UMSL's graduate program in **criminology and criminal justice** is ranked No. 1 by *Intelligent.com*.
- ★ UMSL's international undergraduate business program has been ranked in the **top 25 nationally** by *U.S. News and World Report* for 20 of the last 21 years.
- ★ **Express Scripts**, among the nation's largest pharmacy benefit management organizations, is headquartered on the UMSL campus.
- ★ UMSL has invested more than **\$130 million in new buildings and major renovations** in the past several years including Anheuser-Busch Hall, Recreation and Wellness Center, Science Learning Building and the UMSL Patient Care Center.
- ★ *Times Higher Education* ranked UMSL No. 63 globally on its list of "**Golden Age Universities**."
- ★ *U.S. News & World Report* ranks UMSL No. 1 in Missouri and No. 75 nationally as a "**Top Performers on Social Mobility**" which highlights how well universities graduate students who receive federal Pell Grants.
- ★ *At No. 52 globally, UMSL is one of only 12 U.S. universities to be named amongst the Top 100 best universities for reducing inequalities* based on *Times Higher Education World University Rankings*.
- ★ Great Value Colleges has highlighted UMSL's commitment to nontraditional students, ranking the university 5th nationally in its "**50 Best Colleges for Adult Education**" survey.
- ★ UMSL's **teacher prep programs earned top ratings** on the Missouri Department of Education's Annual Performance Report.
- ★ UMSL is one of only two institutions in Missouri with the National Security Agency/Department of Homeland Security designation as a **National Center of Academic Excellence in Cyber Defense Education**.

★ UMSL launched a first-ever accelerator to focus primarily on energy technologies with Ameren Corporation, UMSL Accelerate and Capital Innovators, as well as a **first of its kind Diversity, Equity and Inclusion Accelerator**.

★ Licensed to UMSL, **St. Louis Public Radio** earned the first-ever Peabody-Facebook Future of Media Award for its "One Year in Ferguson" project and a national Edward R. Murrow Award for its website – one of the region's leading sources of news.

★ UMSL researchers **grew research expenditures by 67%** in the last five years, bolstering the university's steadfast commitment to academic research that impacts lives and enhances scholarship.

★ As the largest public research university in the state's most populous and economically important region, **UMSL's economic impact on Missouri exceeds \$429 million**.

★ UMSL's precollegiate *BRIDGE* program is considered a national model for helping underrepresented students graduate from high school and enroll in college, boasting a continuous 100% matriculation rate.

ACADEMICS

UMSL is home to eight colleges including Arts and Sciences, Business Administration, Education, Nursing, Optometry, the Pierre Laclède Honors College, the School of Social Work, and the Graduate School. The University of Missouri-St. Louis offers over 200 degree and certificate programs.

In FY23, UMSL awarded 2,659 degrees including 1,493 undergraduate, 678 masters, 166 doctorate, 44 professional practice, 73 undergraduate and 185 graduate certificates, and 20 education specialist degrees.

ACCREDITATION

UMSL is accredited by the Higher Learning Commission (HLC), an institutional accreditation agency recognized by the U.S. Department of Education. The University's last Reaffirmation of Accreditation was 2018–2019. HLC's Institution Action Council continued the accreditation of the University of Missouri-St. Louis with the next Reaffirmation of Accreditation in 2028–2029.

STUDENT DEMOGRAPHICS

In Fall 2023, UMSL enrolled 14,800 students including 12,137 undergraduates (includes 6,792 dual enrollment), 2,486 graduate and 177 graduate professional students. Ninety four percent of undergraduate and 79 % of graduate students are from the state of Missouri. Thirty five percent of undergraduate and 29 % of graduate students are full time. In FY23, over 55% of UMSL undergraduate students were Pell Grant-eligible.

In Fall 2023, 59 % of UMSL students are female, 85 % of students are under the age of 25 and 15 % are over 25. Fall 2023 race and ethnicity data include the following: 2.5 % U.S. nonresident, 4.1 % Hispanic, 0.3% American Indian, 5.4 % Asian, 14.6 % Black, 71.1 % White, and 2 % two or more ethnicities.

Source: UM System Executive Data Reference
<https://www.umsystem.edu/ums/fa/ir/irp-reference>

FACULTY

The total full-time, instructional faculty for fall 2022 was 360; of this number, 211 are tenure track research faculty. Of the full-time instructional faculty, 77.7 percent held PhDs; 20.8 percent held master's degrees.

RESEARCH

Designated by the Carnegie classification system of higher education as a R2 Doctoral University with high research activity, UMSL enjoys national recognition as a leader in a wide variety of fields, including biology, criminology and criminal justice, addiction, behavioral health, business, and nursing.

FY23, UMSL had more than \$43 million in grant expenditures. UMSL's world class faculty work across disciplines to solve big scientific and societal problems including Alzheimer's disease, HIV/AIDS, plant stress, mRNA stability, gun violence, trauma, addiction, suicide, literacy and urban education. The latest [NSF HERD Survey](#) (2021) ranks UMSL 316th out of 908 universities nationwide for research expenditures, placing it in the 35th percentile of US institutes of higher learning.

Research Environment: Excellence in Research is a core compact of UMSL's strategic plan with key goals related to strengthening research infrastructure and capabilities, increasing multi-disciplinary research and external funding, and strengthening the research culture on our R2 campus. Our vision for research is driven by a deep responsibility to initiate and support innovative research and scholarship that both enhances the educational learning experiences of our students through the integration of research and teaching and strengthens the economic vitality of the St. Louis region through community-engaged research and scholarship and collaborative research with industry and other partners.

The Office of Research, Economic and Community Development (ORECD) supports several initiatives to enable and reward faculty research. The most significant of these is an intentional focus on building strong programmatic support for early and mid-career faculty. The *Early Career Research Network* is a year-long program for new research faculty that provides monthly grant and research development educational content and connects faculty to mentors, collaborators, campus resources, and peer network support. A unique feature of this program is the *External Mentoring* component which pairs faculty members with leading scholars in their respective fields for a year of mentoring including seminar visits to campus and honorariums for the mentors. To recognize and celebrate the research of our faculty, the Office of Research holds two research events each year: The *Early Career Research Symposium* which recognizes the emerging research of early faculty and a *Research and Innovation* event which includes awards for junior and senior faculty and for collaborative research.

ORECD supports the *Mid-Career Research Investment program*, a competitive program that provides targeted investments to help UMSL mid-career faculty retool, reinvigorate, and/or pivot their research programs through training, graduate research assistants, intensive grant writing support and other resources.

Additional initiatives to strengthen and sustain a strong research environment include realignment of F&A cost recovery to support critical research infrastructure needs including centralized major equipment, competitive start up packages, the creation of a dedicated Office of Research Development including increased grant writing support for faculty, support for

complex proposal development, dedicated budget lines for top tier grant training, and an external peer review program and a partnership with the Federal Reserve Bank of St. Louis and area universities to bring a *Federal Statistical Research Data Center* to St. Louis to advance research in the social sciences.

Other initiatives to enable and support faculty research include expanded investments in sabbatical, campus investment in the *National Center for Faculty Development and Diversity (NCFDD) Faculty Success Program*, formalization and expanded programming for the *UMSL Association for Women Faculty*, the creation of an *Emerging Leaders program* and a *campus mentoring program*. Many of these initiatives are in concert with the *NSF ADVANCE* referenced earlier.

Collectively, these intentional initiatives are building the necessary infrastructure while strengthening our research culture toward enabling, rewarding, and sustaining research at the University of Missouri-St. Louis.

GRADUATE RESEARCH

UMSL offers nationally recognized postgraduate degree programs at the master's and doctoral levels. In fall 2023, 2,486 graduate students of all levels were enrolled full-time in on-campus programs.

The University offers 30 master's degree programs, 13 doctoral degree programs, and the only professional optometry degree program in Missouri. UMSL also provides 30 graduate certificate programs and two education specialist programs. UMSL's faculty members have garnered consistent recognition for being among the best in the United States in several disciplines, and several of the University's graduate programs are top ranked by Academic Analytics, U.S. News & World Report, and the Princeton Review.

To meet UMSL's teaching and research goals, the [Graduate School](#) provides leadership to graduate programs that inspire in students a passion for discoveries. Its programs reflect the University's mission as a public metropolitan research institution: faculty members' and students' scholarship advances understanding of their disciplines in rapidly changing local, regional, and global contexts. In concert with the Graduate Council, the Graduate School provides an environment in which students and faculty can work together to acquire, discover, preserve, synthesize, and transmit knowledge; continuously reviews the University's graduate programs and policies to maintain rigorous academic standards and respond to innovations in teaching and research; and facilitates interdisciplinary communication and endeavors.

UNDERGRADUATE RESEARCH

At UMSL, all majors are encouraged to participate in undergraduate research and scholarship and produce discipline-specific intellectual or creative innovations to their field. In addition, UMSL sponsors two annual events that showcase mentored undergraduate research.

UMSL Undergraduate Research Symposium: UMSL hosts an annual Undergraduate Research Symposium each April that serves as a professional venue for undergraduates to present their mentored research or creative projects for feedback provided by faculty, staff, administrators, students and visitors, followed by awards and a networking reception. The event draws over 70 students from 20 disciplines and enjoys strong support from the campus community, many of whom serve as judges.

UMSL UM-System Undergraduate Research Day at the Capital: Each spring, the University of Missouri system seeks nominations for undergraduates to share their university research experiences with Missouri state lawmakers in Jefferson City, MO for Undergraduate Research Day at the Capital. Sponsored by the University of Missouri system, this event features over 50 undergraduates from all four system universities. This event aims to demonstrate to Missouri lawmakers the unique opportunities undergraduate students have to participate in faculty-mentored research and creative scholarship at the four campuses of the University of Missouri system.

FACILITIES

UMSL's urban campus comprises 350 acres in northern St. Louis County with a variety of modern and historic academic buildings, as well as research facilities, residence halls, condominiums, and apartments.

Campus Master Plan: The UMSL 2021 Campus Plan establishes a bold vision for the physical transformation of the campus which includes a revitalized north campus as the academic core and establishment of a health and workforce district on its south campus.

Science Learning Building: UMSL's \$32 million, LEED certified, four-story science facility houses advanced, equipment-intensive teaching laboratories. The 75,000 square foot building also includes a solarium/town center space that serves as an engaging, collaborative space designed to bring students and faculty together for a broad range of research and discovery activities. The students can use areas of the new building to have an informal discussion with other students and faculty about chemistry and there are white boards that they can use to write and draw structures and reactions. The NMR facility is now housed in the new facility and the students are trained to collect their own data from the instruments.

Richard D. Schwartz Observatory: Located on the UMSL campus, the observatory is used for astronomical research and for public education during regular open house events. It houses a 16" Meade LX200 telescope and two portable 8" Celestron telescopes. The telescope can be used for imaging or spectroscopy with an SBIG ST-8 CCD camera.

UMSL Planetarium: The planetarium, located in Room 407 of the Research Building on UMSL's North Campus, accommodates up to 36 people at a time. It houses a Spitz Scidome HD Digital Projection System, which has a database of over a half billion stars, galaxies, and other deep-sky objects that can be displayed on the 24-foot dome. The projection system also offers 3D views of the planets and known moons. In addition, the projection system can display coordinate lines (meridian, ecliptic, zenith) and demonstrates the phases of the moon, the daily and annual motion of the Sun (Earth's rotation and orbit), and the seasons.

RESEARCH FACILITIES & EQUIPMENT

N.B. Much of the equipment described below is available for outside use by industry partners and other organizations on a fee-for-service basis.

Cell Culture: This facility is solely for cell culture use and houses 3 Nuair laminar flow hoods, a refrigerator/freezer, a manual defrost freezer, four water-jacketed CO₂ incubators, a liquid N₂ cryosystem for box storage of frozen cell lines, a swinging bucket centrifuge, and two inverted microscopes (one is an Olympus CKX41 with an attached digital camera). The facility is outfitted

with all necessary items for cell culture, including sterile disposable pipets and filter units, hemocytometers, water baths, power pipettors, etc. A Nexcelom Cellometer Vision Trio brightfield cell profiling system is available for automated cell counting. Professor Nichols supervises the cell culture facility, including its operation and maintenance.

High Field NMR Facility: The UMSL High Resolution NMR Facility is located in the Department of Chemistry and Biochemistry on the second floor of the new Science Learning Center (SLB 216) and houses three NMR spectrometers: a Agilent DD2 600, a Bruker Avance 300 and a Varian Unity Plus 300. While these instruments are primarily for the use of the faculty, postdoctoral, and students in the Department of Chemistry and Biochemistry, other users (corporate other universities, and organizations) are welcome. With support from NSF MRI-R2 grant (0959360), an Agilent DD2 600 MHz NMR spectrometer was purchased and installed in early 2012. This spectrometer is operated by a Linux PC with VnmrJ 4.1 software.

Two probes are available: a 5-mm three channel inverse gradient broadband and a 5-mm gradient broadband, each of which is capable of variable temperature experiments (-80 to +130°C). This spectrometer is a research-oriented instrument and primarily used to investigate the structures and dynamics of macromolecules and complex molecular systems as well as implement new NMR experiments for users at different areas.

X-Ray Diffraction Laboratory: The X-ray Diffraction Laboratory at UMSL supports crystallographic research conducted globally within numerous academic and industrial research groups. The Laboratory is equipped with state-of-the-art instrumentation and computational facilities for solid-state three-dimensional crystal and molecular structure determinations.

Microscope Imaging and Spectroscopy Technology Laboratory (MIST): *Housed in* the Department of Chemistry and Biochemistry, MIST has expertise and equipment for various types of specimen preparation and microscopic analysis. The laboratory supports research in chemistry, physics, and biology, and provides analytical support and referrals for local industries and members of the academic community. The lab includes electron, scanned probe, and confocal microscopy, thermal analysis, and surface area/pore size analyzer equipment.

Magnetometer Facility: This facility contains a Quantum Design Physical Property Measurement System (PPMS) instrument that operates at various magnetic fields ($0 \leq \pm 9$ Tesla) and temperatures (1.8 - 400 K). It is equipped with a helium recovery system and a sensitive ACMS-II sample probe, which measures magnetic susceptibility under both static dc and dynamic ac fields and frequencies ($0 \leq H_{ac} \leq 3$ Oe; $0 \leq \nu \leq 10$ kHz); vibrating sample magnetometry (VSM) is also available. Ultra-low field, resistivity, and photomagnetic (280 - 1100 nm, TLS120Xe) measurements are also possible.

Mass Spectrometry Facility: The Mass Spectrometry Facility is housed in a 1000 sq. ft laboratory located in the UMSL Research Building (R003). In addition to the mass spectrometers described below, there are areas for data processing, instrument maintenance, parts storage, and sample preparation. The instrumentation is used primarily for the support of research and teaching in the Department of Chemistry and Biochemistry. However, in years past, the MS facility has been a resource for the local businesses or academic community members who lack this instrumentation.

Bruker Maxis Plus (maXis HD) quadrupole time-of-flight mass spectrometer and UHPLC: Comes with Electrospray ionization, atmospheric pressure photoionization, and a solids probe for ionizing solids directly. It can do $m/\Delta m = 60,000$ and collect up to 20 spectra per sec. The department's most recent MS instrumental acquisition is an Agilent 6220 Accurate-Mass Time-of-Flight (TOF) LC/MS system, which provides high sensitivity and mass accuracy sufficient to

identify molecules. In addition, ionization via either electrospray or atmospheric pressure ionization makes the system exceptionally versatile, and MassHunter software supports qualitative and quantitative analysis.

Liquid Chromatography-Mass Spectrometry TSQ Altis Triple Quad: ThermoFisher Scientific TSQ Altis Triple Quad Mass Spectrometer equipped with Vanquish binary pump and Triplus autosampler. TSQ Altis is suitable for Pharma/Biopharma, Environmental, Food Safety, and Omics studies. The instrument has a mass range of 5 - 2000m/z with a maximum resolution of 0.2 FWHM. Some of the outstanding features of the instrument are a maximum of 30,000 transitions per run, polarity switching in < 20 msec, dynamic interscan time, 600 SRM/sec, and a signal-to-noise ratio of 500,000:1.

HP 6890 GC with Agilent 5973 Mass Selective Detector: For routine mass spectral analysis following capillary column gas chromatography (GC) separation with Electron impact (EI) and chemical ionization (CI) capabilities. Set up for the latter is pending. Also included: workstations for data processing and library spectral searching.

CENTERS AND INSTITUTES

Whitney R. Harris World Ecology Center: The Harris World Ecology Center (HWEC), through a unique set of partnerships, promotes research and training in basic ecology and biodiversity conservation across the globe, and increases public awareness and interest in issues relating to global natural resource conservation. The center is housed within the Department of Biology at the University of Missouri St. Louis, and works closely with the Missouri Botanical Garden and St. Louis Zoo.

Missouri Institute of Mental Health (MIMH): Established in 1962 to address a regional shortage of mental health professionals, [MIMH](#) has played an instrumental role in advancing behavioral healthcare and improving the lives of ordinary Missourians for over half a century. Since its inception, the Institute has been at the forefront of dramatic social and disciplinary transformations. Early MIMH initiatives resulted in significant reductions in hospital overcrowding, the dismantling of racial segregation in St. Louis psychiatric care facilities, and the extension of full-time mental health care to previously neglected patient populations. Today, MIMH is one of the nation's premier health research organizations, specializing in HIV/AIDS, substance abuse disorders, trauma, suicidality, and improving mental health outcomes for women, children, and military veterans. The Institute has generated over \$150 million in external funding since 2010 and remains a top driver of annual research expenditure increases at UMSL.

Children's Advocacy Center: Children's Advocacy Services of Greater St. Louis is a university-based, multidisciplinary center that provides high-quality trauma-focused services to youth, families and the community. The center works to promote resiliency, physical safety, and emotional stability through comprehensive research, forensic and clinical services, and educational and advocacy programming. The center serves children impacted by all types of traumatic events including childhood sexual abuse, physical abuse and neglect. Center staff serve as witnesses of domestic abuse and violence crime and children who have suffered accidents, natural disasters, and traumatic bereavement.

Center for Behavioral Health: The Center for Behavioral Health (CBH) is a not-for-profit outpatient mental health center established by the University of Missouri-St. Louis to provide psychological services to residents of the St. Louis metropolitan area. Since 1977, CBH has promoted excellence in the counseling and psychological evaluation services. CBH offers

affordable, comprehensive psychological evaluation services to children and adults who would not otherwise be able to afford professional mental health care.

Center for Trauma Recovery (CTR): CTR is a multi-disciplinary center of the University of Missouri-St. Louis whose purpose is to foster Research, Graduate and Undergraduate Education, and Service (by way of a specialized Trauma Clinic) in the areas of trauma and victimization. Housed in the Kathy J. Weinman building, the Center consists of faculty from six departments at the University who have research, teaching, or service interests in trauma-related topics. These individuals share a common set of goals. The Center offers graduate and undergraduate certificates in Trauma Studies.

Center for Character and Citizenship (CCC): CCC engages in research, education and advocacy to foster the development of character, democratic citizenship and civil society. Funded by grants, individual donations, and through corporate and foundation support, the CCC focuses on generating and disseminating both knowledge and research pertaining to how individuals develop moral and civic character. By providing scholars, educators and social organizations with the tools they need to contribute to this development, the CCC plays the role of a think tank, offering workshops, consulting, and professional development. The CCC also provides resources and tool kits to assist educators, parents and scholars in character and citizenship education. The staff, affiliates, consultants and experts associated with the CCC offer a wide variety of programs, services and resources for educators, school leaders, individual schools (public and private), school districts, researchers, graduate students, universities and non-profit organizations in the United States and around the world.

Community Innovation and Action Center (CIAC): The Community Innovation and Action Center ([CIAC](#)) at UMSL conducts applied research and connects neighborhood partners, empowering St. Louis residents to cultivate their full potential and live happy, healthy lives. The Center serves as a bridge between local government, nonprofit organizations, and emerging community leaders to enact its vision of an equitable metropolitan region characterized by quality housing, economic opportunity, sustainable energy, reliable infrastructure, and vibrant public spaces. Accordingly, CIAC has developed a robust research profile in each of these areas, refining skills and coordinating community-based partners to facilitate collaborative action and learning.

Center for Neurodynamics: A mainstay of scientific collaboration and multidisciplinary inquiry at UMSL since 1996, the [Center for Neurodynamics](#) provides a base of operations for pathbreaking research into multiple, divergent areas of neuroscientific inquiry, from initial forays into nonlinear dynamics in biological systems to more recent studies of the role of noise in human sensory perception. A recipient of federal funding from the Office of Naval Research, National Institutes of Health, Defense Advanced Research Projects Agency, and National Science Foundation, the Center has added the spatiotemporal imaging of neural systems to its roster of projects since Professor Sonya Bahar assumed leadership of the consortium in 2006, and now includes virtually all UMSL faculty with research commitments in the neurosciences.

Geospatial Collaborative: Consistent with the larger government and industry push to establish the St. Louis region as a national hub of geospatial innovation, the UMSL [Geospatial Collaborative](#) was born of a commitment to transform, secure, and empower communities through geospatial knowledge. Fully integrated within the broader St. Louis geospatial ecosystem—at the center of which sits the National Geospatial-Intelligence Agency's new multi-billion dollar campus north of downtown, the largest ever federal investment in the city—the

UMSL Geospatial Collaborative is a recognized leader in bridging academia, industry, and government to solve community issues through advanced geospatial tradecraft.

UNIVERSITY LIBRARY FACILITIES

The [University Libraries](#) provide information resources that support the academic mission and long-term goals of the University while making their research collections available to the widest numbers of local and national users.

Thomas Jefferson Library: Serves as the main academic library for the University of Missouri-St. Louis, the only public research institution in the region. Consists of three main units: public services, technical services, and acquisitions. Services include interlibrary loan, repository and digital collections, affordable and open educational resources (AOER), citation searching and impact factors, institutional repository for scholarly works and dissertations, digital library, special collections, archives, databases, journals and eBooks, and a variety of research services.

St. Louis Mercantile Library: Founded in 1846—and chartered by the State of Missouri in the same year—the St. Louis Mercantile Library is the oldest general library in continuous existence West of the Mississippi River. Established by civic leaders and philanthropists wishing the citizens of frontier St. Louis to have a fine library even in the city's earliest days, the Mercantile, as it has now been known by generations of Missourians, exists today as a vibrant, active community asset, celebrating its heritage while making great collections accessible to new scholars. The Mercantile's collections concentrate on Westward Expansion and American rail and river transportation history, as well as the history, development, and growth of the St. Louis region, with a core collection numbering over 250,000 volumes. Its special holdings include over 400 individual collections with archival materials numbering in the millions, covering over 100 historic newspaper titles, presidential letters, early travel diaries and civil war era letters, fur trade records, and the newspaper and printing morgue of the *St. Louis Globe Democrat*.

State Historical Society of Missouri – St. Louis Research Center: Supporting the study of Missouri and the Midwest, the Research Center, located on the University of Missouri–St. Louis campus preserves the diverse history of the city and its surrounding area within a statewide context. The Center's rich holdings trace the evolution of greater St. Louis through unique collections that document important groups ranging from labor organizations to environmental activists. Other primary sources offer a window into minority groups and the many diverse communities that make up the growing metropolis.

St. LOUIS PUBLIC RADIO

UMSL is home to St. Louis Public Radio, a trusted source of news, investigative reporting, and entertainment and the winner of multiple Edwin R. Murrow St. Louis from the Radio Television Digital News Association (RTDNA). The RTDNA is the world's largest professional broadcast and digital journalism organization, whose mission is to protect and promote responsible journalism.

Since its founding in 1972, the station has sought to educate and inform the greater St. Louis community, paralleling the university's vision of providing education for all who seek it and serving as a source of knowledge in the community. A leader in technological innovation, it was the first radio station in the country to broadcast ambisonic programs, the first station in St. Louis to play music from CDs and was also among the first to move to HD, all-digital transmission.

STL Public Radio has grown substantially in service – adding HD channels focused on jazz and classical music; additional stations in Quincy, Illinois, and Rolla, Missouri. STLPB now reaches an audience of more than half-a-million from a gleaming, modern studio in [St. Louis' Grand Center Arts District](#).

DIVERSITY AND INCLUSION

At the University of Missouri-St. Louis, "we value the uniqueness of every individual and strive to ensure each person's success. Contributions from individuals with diverse backgrounds, experiences and perspectives promote intellectual pluralism and enable us to achieve the excellence that we seek in learning, research and engagement. This commitment makes our university a better place to work, learn and innovate."

The University strives to build an exemplary educational community characterized by the recognition and appreciation of the contributions of all people. UMSL thereby stimulates learning that comprehends the reality of global interdependence and the importance of cross-cultural competence. Accordingly, institutional programs prepare graduates for a rapidly changing global environment that calls for a dynamic and adaptable workforce in which cooperation and competition are increasingly waged at the global level.

UMSL's Bridge Program—one of the most successful and widely emulated of these initiatives—provides unique, comprehensive, year-round precollegiate programming for St. Louis area high school students and parents. Student participants represent public and private high school institutions throughout the St. Louis metropolitan area. Graduates of the program boast a 100 percent college-going rate, meaning they complete high school and successfully transition to a post-secondary institution.

NSF ADVANCE: In Fall 2020, the National Science Foundation (NSF) awarded UMSL \$1,000,000 to implement its multi-year NSF ADVANCE Adaptation project: *Advancing Equity for Black, Hispanic, and Other Women in STEM Academic Careers through Organizational Change at an Urban Public Research University*. The overarching goal of UMSL ADVANCE is to develop and enhance institutional structures, policies, and processes that will lead to gender equity among STEM faculty and cultivate an organizational climate where women, as well as African Americans, Hispanics, and other historically underrepresented groups in STEM, the Social & Behavioral Sciences (SBS), and other research areas will thrive.

STRATEGIC PLAN

The University adopted a new [strategic plan](#) in 2018, detailing a bold, expansive vision to guide its collective actions for the next five years and beyond. The plan solidifies UMSL's commitment to the five Missouri compacts for excellence in the 21st century: Student Success; Research and Creative Works; Community Engagement and Economic Development; Inclusive Excellence; and Planning, Operations, and Stewardship. Likewise, UMSL's six core values form an integral part of each compact. Trust, inclusion, innovation, access, success, and engagement each support and are strengthened by the specific goals the University has set. The plan aims to position the University for a future of progress and continued excellence.

ACADEMIC COLLEGES AND SCHOOLS

College of Arts and Sciences: The [College of Arts and Sciences](#) (CAS) cultivates the next generation of poets, conservation biologists, symphony soloists, psychological scientists, historians, criminologists, chemists, sculptors, painters, communicators, space explorers, and

foreign language speakers. As UMSL's largest college, CAS provides the University's diverse student body access to an affordable, quality education with expert faculty. With its strong focus on research and scholarship, CAS encourages students to explore the latest thought and theory, while giving them access to ground-breaking studies through undergraduate and graduate research opportunities. Emphasis on the arts and sciences working in communion leads graduates toward a holistic understanding of their fields, creating the best scholars for academia and professionals for the world. The academic core of the University, CAS offers 31 baccalaureate, 16 master, and 7 doctoral degrees as well as numerous minor and certificate options.

College of Business Administration: UMSL's [College of Business Administration](#) educates and graduates business leaders and entrepreneurs with unparalleled drive, business savvy, and superior management skills. The College's 34,000 alumni shape the global and local workforce, with 80 percent living in the St. Louis region and driving the advancement of local industry. Part of the largest public research university in eastern Missouri, CBA provides a diverse student body access to an affordable, quality education with expert faculty. Programs focus on core business principles, the latest research and teaching through real-world consulting, creating exceptional business professionals.

College of Education: UMSL's [College of Education](#) is a hub of innovation where diverse scholars, practitioners, and education-focused entrepreneurs converge to problem solve and incubate and develop ideas and modes of practice that propel the entire field of education forward. The College provides a wide array of undergraduate, graduate, and doctoral degree programs that prepare and sustain culturally competent, dedicated, highly trained teachers for a variety of traditional and non-traditional educational settings. The College also prepares administrators, counselors, school psychologists, behavior analysts, educational scholars, and entrepreneurs. One of Missouri's largest training centers for educators, the College has consistently garnered recognition for excellence. Its innovative Studio School model—which has the College partnering with more than 30 local schools—allows for collaborative practicum experiences that enrich future teachers' learning while strengthening the St. Louis region.

College of Nursing: Since its founding in 1981, UMSL's [College of Nursing](#) has grown exponentially, positioning itself at the forefront of delivering quality, affordable nursing education to the St. Louis region and beyond. Born out of a desire to meet perpetual demand for a competently trained, professional nursing workforce, today more than 800 students call the College of Nursing home. Of these, more than 20 percent are minority students and approximately 40 percent are first-generation students. The College has developed innovative partnerships with local healthcare agencies to deliver state-of-the-art clinical experiences to its students and prides itself particularly on its impact on the local region, as nearly 90 percent of its alumni stay and work in St. Louis after graduation. Offering traditional BSN, RN to BSN, and doctorate-level degrees in multiple formats—including online, off-campus and accelerated options—the College is a recognized leader in delivering compassionate, innovative, evidence-based care.

College of Optometry: The only optometry program in Missouri and one of only a handful across the country, UMSL's [College of Optometry](#) trains the nation's next generation of optometrists and vision experts. Its graduates have practiced in nearly all 50 states and have taken their expertise to other countries around the world. Thanks to rigorous admissions standards and faculty who are award-winning scholars and practitioners in their areas of expertise, the program prepares graduates to deliver compassionate patient care while instilling a sound background in the biomedical, optical, behavioral and clinical sciences, including an

understanding of the health-care delivery system. A state-of-the-art, on-campus Patient Care Center, plus more than 100 externship sites and multiple community partnerships provide students with a wide range of clinical learning experiences. The Optometry Scholars Program offers an exclusive opportunity for students to develop research experience while being paired with faculty members who share their interests. Small class sizes and a fully supportive, familial atmosphere are hallmarks of the program. **University Eye Center:** Located in the Patient Care Center on UMSL's South Campus, the University Eye Center is a full-service eye care facility open to the public. Services include adult comprehensive eye care, pediatrics/vision training, contact lenses, eye health management, retinal photography, low vision rehabilitation, corneal topography, electrodiagnosis.

School of Social Work: In an era punctuated by violence, civil unrest, and social injustice, UMSL's [School of Social Work](#) prepares leaders to bring about positive change, especially in the St. Louis metropolitan region. One of the largest BSW programs in the region, the School boasts a database of 400-plus practicum locations, including DOORWAYS, United Way of Greater St. Louis, and Beyond Housing, providing extraordinary opportunities for community engagement. Through critical, empirical, and applied aspects of social work, students gain a multicultural perspective with a strong emphasis on community and agency field work.

UMSL/Washington University Joint Undergraduate Engineering Program: In St. Louis, budding engineers have their hands on the pulse of Missouri's most populous, economically important region. By working toward energy solutions, structural design, and technological developments in a metropolitan area, students have a clear advantage in employment and research opportunities. With this in mind, the UMSL/Washington University [Joint Undergraduate Engineering Program](#) formed in 1993. This partnership, unique in the United States, exemplifies the continuing commitment of both public and private institutions to the St. Louis region. The pioneering collaboration allows the two universities to provide together what neither could have offered separately: the opportunity to earn a civil, electrical, or mechanical engineering degree on a flexible schedule. Such flexibility allows students to co-op during the day at local engineering firms, often leading to full-time employment. The co-op program enables upper-division students to jump-start their engineering careers by working part-time (20-30 hours per week) during the day in an engineering-related position and completing their engineering course work in the evening and on Saturdays. Students are employed in engineering positions at a variety of local technology-based business and industries, including Ameren, Anheuser-Busch InBev, and Boeing, among many other regional leaders.

The Graduate School: Many of St. Louis' business leaders, public servants, and entrepreneurs have one thing in common—an advanced degree from the University of Missouri—St. Louis. In addition to relevant, challenging courses, UMSL [Graduate School](#) students participate in guided and independent research experiences, internships and assessment exams. The Graduate School focuses on a careful balance of independent critical thinking and the ability to meet the many student requirements that vary according to background, abilities, and interests. Composing a fifth of the student body, graduate students make a critical contribution to the University's mission as a public metropolitan research institution. Through 33 master's, 15 doctoral, and two education specialist offerings, the Graduate School provides evolving programs that advance careers and contribute to the region's economy and social advancement.

Pierre Laclède Honors College: [Pierre Laclède Honors College](#) students stand out among their peers. Through small class sizes, discussion-based learning, and extensive faculty interaction, undergraduate students find ways to complement their degree by accepting

academic challenges and becoming creatively involved in the learning process. Unlike UMSL's other colleges, the Honors College has no academic departments and grants no degrees. Instead, it brings together a cross section of students and teachers in a distinctive curriculum, designed to meet a portion of the students' general education requirements. The Honors College provides stimulating and innovative seminar courses, full-service academic advising, a First Year Experience program, a writing program, and an internship program. Students also enjoy a full social calendar thanks to the student association and living and learning communities for residential students.

RESEARCH AND ECONOMIC DEVELOPMENT

Research, Economic and Community Development: The [Office of Research and Economic & Community Development](#) (ORECD, formerly the Office of Research Administration, or ORA) provides leadership and support in the development, execution, and operation of programs in sponsored research, technology transfer, and economic development throughout UMSL.

ORECD seamlessly combines support for research, commercialization, economic development, and aspects of federal and foundation relations responsibilities into a single efficient unit (which includes subunits devoted to research development, sponsored programs administration, intellectual property management and commercialization, compliance, economic and community development, and corporate and foundation relations). As an integral part of this mission, ORECD also supervises a select group of interdisciplinary research centers on campus and startup incubators off campus to leverage university resources for the benefit of students, faculty, and the larger community.

St. Louis Anchor Network: Along with Edward Jones, UMSL serves as the lead institution for the St. Louis Anchor Action Network which works to drive sustained investment in St. Louis people and places, guided by a shared commitment to advance racial equity, remove barriers to economic opportunity and create a more inclusive regional community. The Network is a coalition of local anchor institutions – large companies and organizations that serve as pillars of our regional economy – working to leverage economic and organizational resources to collectively advance intentional hiring and career development, purchasing and community investment. The Network has received national recognition for its place-based approach to addressing long standing regional issues of racial and health equity in the region and the work was recently presented at the National Academy of Sciences, Engineering and Medicine.

Opportunity Zone: The UMSL campus is located in a federal opportunity zone, a federally designated area that offers tax incentives for investments and development.

TECHNOLOGY, COMPUTING, AND CYBERSECURITY INFRASTRUCTURE

UMSL continually develops, maintains, and improves its information technology (IT) infrastructure and applications to support the creation, storage, modification and sharing of data. These IT systems are essential to the efficient and effective operation of the University. The University, therefore, has a responsibility to institute appropriate safeguards to keep its IT systems and information assets secure. In addition, the University must comply with various regulatory requirements that are also designed to keep certain types of data secure and confidential.

The security of IT systems and information assets is dependent on the individuals managing as well as the individuals utilizing such resources. The University is committed to supporting the principles of academic freedom and the free exchange of ideas and its information security

policies and programs are intended to support those principles while still maintaining an appropriate level of security.

Accordingly, the security program's goals include:

1. Protect the University's IT systems and information assets from unauthorized access, alteration, disclosure or destruction.
2. Ensure the reliability and availability of the University's IT systems and information assets.
3. Ensure the privacy of faculty, staff and student information and that of other University customers or associates.
4. Protect the reputation of the University and ensure compliance with federal and state laws and regulations.
5. Establish resources and guidelines that allow all individuals within the University community to practice good data stewardship.

POLICY STATEMENT

As a matter of policy, the University continuously develops, implements, and maintains a comprehensive, system-wide information security program with appropriate methods and safeguards as required by industry standards, as well as federal and state laws and regulations. Consistent with the University's Collected Rules and Regulations (CRR), the Vice President for Information Technology (VP for IT) assumes primarily responsibility for the development, implementation, and enforcement of this program. The program will apply to all units within the University and to all users of University IT resources, regardless of their relationship to the University.

Each University entity must comply with the IT security policies and programs or, when necessary, develop specific security policies, programs, and processes consistent with the system-wide program and approved by the VP for IT. The information security program, under the guidance of the Chief Information Security Officer (CISO), will establish policies and processes governing how individuals manage and use the University's IT systems. The program will be applicable to all the University's IT systems including, but not limited to, applications, databases, networks, computer systems/servers, computing facilities, and all computing devices owned by the University or that hold University data. The program may also apply to personally owned devices if such devices are utilized for University purposes.

OVERSIGHT AND STRATEGY

The University of Missouri (UM) System maintains a Systemwide Information Security Council (SISC) that is charged with overseeing information security (InfoSec) policies, procedures, and standards to identify and apply a risk-based approach to information security at its four constituent campuses (St. Louis, Kansas City, Columbia [Mizzou], and Rolla [Missouri University of Science and Technology]). The committee strives to ensure the InfoSec program supports the University's mission, improves the security posture of the University, and is appropriately prioritizing resources and risk.

The committee is accountable to the Vice President for Finance and Vice President for Information Technology and is jointly chaired by the Director of Risk and Insurance Management and the CISO, whose offices also provide administrative support for the SISC. The CISO serves as liaison between the SISC and the Information Security Group (ISG), which is a working group comprised of the CISO, the Information Security Officer (ISO) from each University within the system, and other members as appropriate. The Chief Information Officer (CIO) for each University entity will be responsible for communicating, publishing, and

distributing new policies and program components to their respective entity. CIOs and ISOs will manage compliance within their respective entities. The VP for IT will manage compliance within UM System departments.

VULNERABILITY MANAGEMENT

Vulnerability Management (VM) is a critical component of the University's information security program, and is essential to help reduce its potential financial, reputational, and regulatory risks. Vulnerabilities within networks, software applications, and operating systems are an ever-present threat, whether due to server or software misconfigurations, improper file settings, or outdated software versions. Elements of VM, described in further detail below, include enterprise vulnerability management standard and patch management standard.

Enterprise Vulnerability Management Standard

Regular vulnerability scanning along with the timely and consistent application of vendor-supplied security patches or other mitigation of a reported vulnerability are critical components in protecting the university network, systems, and data, from damage or loss as well as meeting regulatory and compliance requirements. Vulnerability scans should be run at least once a month, more frequently on request. Centrally supported and managed servers may have a scanning frequency established by the server support team. If a department is managing its own server, it must be enrolled and scanned at least once a month, more frequently on request. The information security team may also scan the entire IP address ranges of University of Missouri networks to discover unenrolled and or other vulnerable systems. Remediation and mitigation should be prioritized based on the associated vulnerability severity and the impact on confidentiality, integrity, or availability of the vulnerable system(s).

Patch Management Standard

Patches correct security and functionality problems in software and firmware. Applying these patches proactively prevents the exploitation of known vulnerabilities. The CISO and business unit ISO are authorized by the University's executive officers to act, as needed, to ensure that un-remediated systems or applications do not pose a threat to university information resources. When a critical vulnerability is not remediated within a required timeframe or is improperly remediated, the CISO or ISO may temporarily block the system or application from the network until such time as the remediation is effectively completed.