Vice Provost and Dean of the College of Arts, Sciences, and Education 2021-2022

MISSOURI S&T

BUFFKIN / BAKER
Recruiting Leaders. Impacting Organizations.

Martin Baker | Managing Partner
Chelsie Whitelock | Principal
mstcecdean@buffkinbaker.com
www.buffkinbaker.com

Missouri University of Science and Technology (Missouri S&T) is seeking an accomplished scholar, visionary leader, and proven academic administrator to lead the College of Arts, Sciences, and Education.

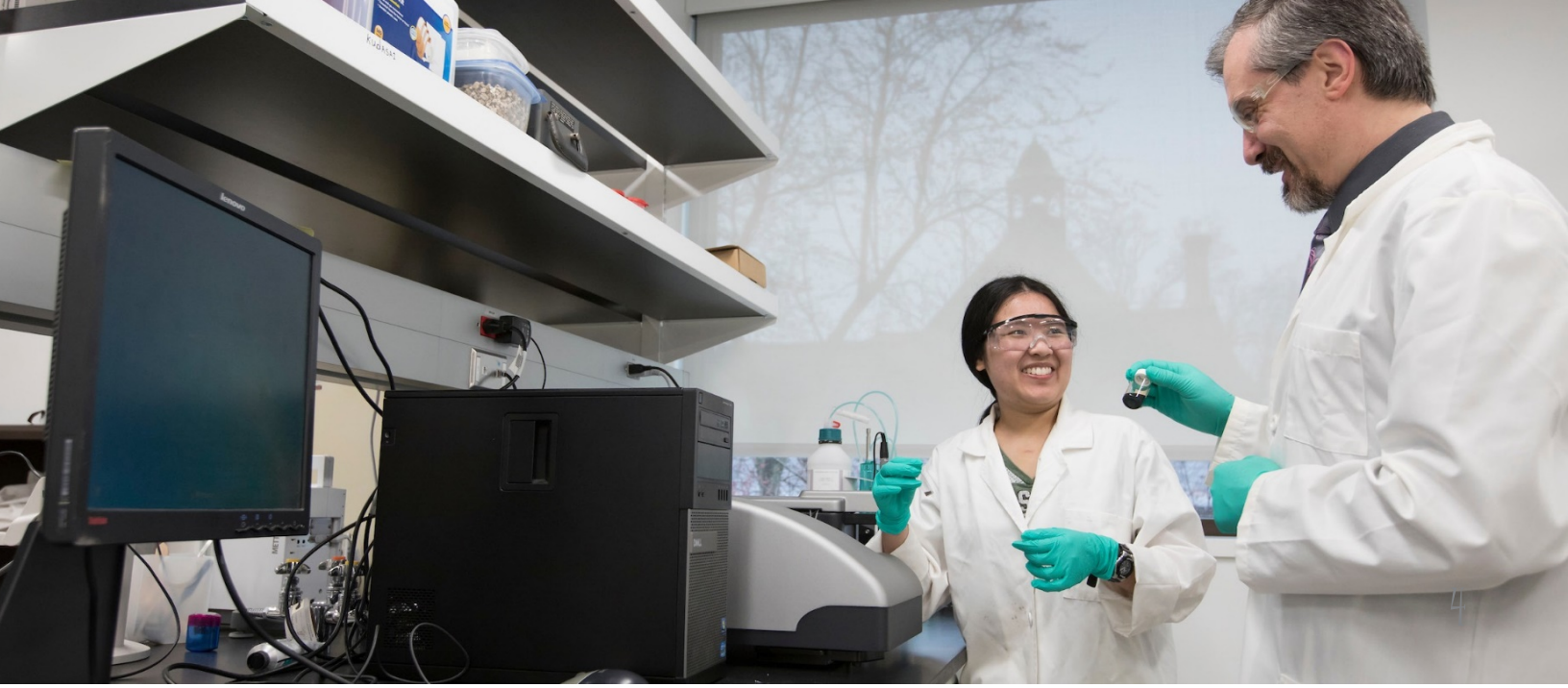
Missouri University of Science and Technology (Missouri S&T) is seeking a bold and visionary leader of the newly restructured College of Arts, Science, and Education (CASE).

This is an exciting time in Missouri S&T's history, with fresh leadership, a focused vision, and the transformational opportunities afforded by several significant philanthropic gifts. The dean will join the university's leadership team of Chancellor Mo Dehgani, Provost Colin Potts, Vice Chancellor for Research Kamal Khayat, Vice Chancellor for Finance and Operations, Alysha O'Neil, and the new deans of Missouri S&T's other two colleges: the College of Engineering and Computing, and the Kummer College of Innovation, Entrepreneurship, and Economic Development. All are working toward four "north star" goals: to increase enrollment significantly, especially in graduate education; promote student success, thriving, and retention; broaden the research base, and achieve Carnegie R1 status; and elevate Missouri S&T's national and international stature and reputation. Several significant endowed positions are being filled in all three colleges, enabled among other gifts by a transformational donation of $300 million by Fred and June Kummer, and Missouri S&T has embarked on the building of an ambitious Arrival District complex of buildings and public spaces. Four major research centers have been created in trans-disciplinary, problem-focused areas that will bring basic and translational researchers together to address socio-technical challenges: advanced and resilient infrastructure, resource sustainability, advanced manufacturing, and artificial intelligence and autonomous systems. Public and philanthropic commitments have recently been made to support a satellite campus devoted to manufacturing outreach and cooperative research.

In summary, Missouri S&T's future is bright and assured. Although the groundwork is already in place, there is ample opportunity and freedom to define and refine the college's vision and its role in shaping the future of the university. We are seeking a dynamic leader who is eager to accept that challenge and make a long-term difference.

About Missouri S&T

Missouri University of Science and Technology is one of the nation's top technological research universities and one of four distinct universities of the University of Missouri System. Missouri S&T is a public university with three academic colleges: the College of Arts, Sciences, and Education; the Kummer College of Innovation, Entrepreneurship, and Economic Development; and the College of Engineering and Computing. The University offers quality educational opportunities, with 101 different degree programs in 40 areas of study in engineering, science, computing and technology, business, social sciences, humanities, and education. Together, the colleges are home to almost 400 full-time faculty, in addition to part-time faculty. Missouri S&T has total student enrollment of 7,271 for Fall 2021 with graduate student enrollment of approximately 1,545. There are 552 doctoral students pursuing one of 22 programs offered in STEM fields, and over 832 students enrolled in graduate programs serving working professionals. Missouri S&T is classified by the Carnegie Foundation as a doctoral university with high research activity, and at the close of FY2021, research expenditures at S&T were $53,315,090. Approximately two-thirds of funding comes from federal sources and the remaining one-third of funding comes from industry/private partnerships.



History of Missouri S&T

Founded in 1870 as the University of Missouri School of Mines and Metallurgy, the school, known as MSM, was one of the first technological institutions in the nation. MSM was established as part of the land-grant movement established by the federal government through the Morrill Act. In 1963, following the establishment of the UM System, the school became known as the University of Missouri-Rolla, or UMR, and the university's national reputation was established under that name. In 2008, the university changed its name to Missouri University of Science and Technology to broadcast more clearly its position as a leading STEM-focused university dedicated to discovery, creativity, and innovation to benefit the citizens of Missouri, the nation, and the world. As one of the original land-grant universities in the state, and the only space-grant university in the UM System, Missouri S&T is poised to capitalize in the coming years on the growing importance of STEM education throughout the state and the nation.

Missouri S&T Today

Missouri S&T has a unique constellation of comprehensive programs that benefit Missouri, the region, and the nation.

Research

Missouri S&T receives federal funding for externally sponsored research from the National Science Foundation (NSF), U.S. Department of Transportation (DOT), Departmentof Energy (DOE), Department of Defense (DOD), the National Institutes of Health (NIH), among others. The university is home to two U.S. DOT University Transportation Centers, a DOE SunShot consortium, and an FAA Center of Excellence. With NSF, Missouri S&T has a long history of successes in the MRI program, CAREER awardees, and EAGER and GOALI awards. It is also home to an I-Corps site and both CyberCorps®: Scholarship for Service (SFS) and Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Programs.



Missouri S&T is well known for its industry-focused research programs. Currently there are six active industry consortia, three of which have more than a dozen industry members. The three largest consortia are: the Center for Electromagnetic Compatibility (NSFI/UCRC), the Center for Aerospace Manufacturing Technologies, and the Kent D. Peaslee Steel Manufacturing Research Center. This industryactivity is supported by an active Economic Development/ Technology Transfer Office.

The scholarly productivity of the faculty goes well beyond the STEM disciplines to provide rich benefit and international recognition to S&T. With prestigious grants funded by such agencies as the National Endowment for the Humanities (NEH) and Fulbright Program, S&T is home to some of the most highly productive social science and humanities scholars in the state of Missouri.

Corporate Partnerships

Numerous corporate partners worldwide support Missouri S&T's academic programs. The university has relationships with nearly 3,000 companies and government agencies that hire our students, provide internship and co-op experiences, sponsor research, and collaborate in degree and non-degree education.

Companies such as Boeing, Apple, Google, Honeywell, Nucor, ArcelorMittal, Caterpillar, Black& Veatch, Burns & McDonnell, Chevron, Conoco Phillips, ExxonMobil, Garmin, Anheuser-Busch, Cisco Systems, PepsiCo,and General Motors are among the more engaged corporate partners. The HyPoint Industrial Park in Rolla is home to several high-tech small businesses that also work closely with the university. In addition, Missouri S&T fosters partnershipswith numerous federal agencies including Sandia National Laboratories, Oak Ridge National Laboratory, the U.S. Army via its nearby base at Fort Leonard Wood, and others.

The Kummer Institute

The Kummer Institute for Student Success, Research and Economic Development was established in October 2020 through a gift of $300 million from June and Fred Kummer, longtime benefactors of Missouri University of Science and Technology. Part of the gift will support the establishment of four new research centers at Missouri S&T: Artificial Intelligence and Autonomous Systems, Advanced Manufacturing, Resource Sustainability, and Advanced and Resilient Infrastructure. These research centers will elevate Missouri S&T's national reputation, position Missouri S&T as a leader in their respective fields, and leverage, build and grow academic-industry-government partnerships to lead the economic transformation of the region, state, and nation.

The College of Arts, Sciences, and Education

The College of Arts, Sciences, and Education (CASE) is committed to enriching student development and complementing Missouri S&T's traditional technological disciplines, as well as developing new programmatic areas. CASE also plays a vital role in fulfilling Missouri S&T's mission of integrating education, research, and application to create and convey knowledge that serves our state and helps solve the world's great challenges. In order to fulfill this mission, CASE offers a unique mix of humanities and fine arts, education, and natural, physical, social, and military sciences. The college includes the departments of mathematics and statistics; arts, languages, and philosophy; biological sciences; chemistry; English and technical communication; history and political science; physics; teacher education and certification, and psychological science. CASE also includes Missouri S&T's Air Force and Army ROTC.

The college offers 13 undergraduate degree programsin applied mathematics, biological sciences, chemistry, English, history, information science and technology, multidisciplinary studies, philosophy, physics, psychology,and technical communication, as well as 52 minors. In addition, students may specialize in one of more than 27 emphasis areas within these degree programs. CASE also delivers the majority of academic offerings in the general education curriculum.

Master's degrees are offered in the departments of biologicalsciences; chemistry; English and technical communication; mathematics and statistics; physics; and psychological science. In addition, doctoral degrees are offered in the departments of chemistry, mathematics and statistics, and physics.

CASE enrolls approximately 1,200 students, with 890 of those students being undergraduates. There are approximately 174 faculty and 14 staff in the College.

Distinctive Dimensions of CASE:

Collaboratory – a new hub for digital humanities research and collaboration across disciplines. Ribbon-cutting took place in October 2021 and the lab has already brought in significant donor gifts ($125K) and grant funds from the Missouri Humanities Council. This technology-rich center advances humanities research and provides opportunities for communicating the impact of Missouri S&T research, through a video studio, podcasting studio, and IT hardware designed to facilitate remote collaborations.

Center for Science, Technology, and Society. Among Missouri S&T's newest centers, the CSTS has the broadest and most inclusive membership of any center on campus. PIs from 19 programs across both colleges meet regularly to form collaborations and seek external funding to solve problems related to how people intersect and interact with technology and science of today. In just two years, the CSTS has more than tripled its external grants awarded, the number of researchers involved in successful grants has increased significantly, and approximately 40 peer-reviewed articles on STS topics appeared last year alone. A grant from the NSF allowed the CSTS to host an international meeting in September 2021 on "The Futures of STS in Engineering and Polytechnic Universities"; leading STS scholars from around the world and Program Directors from NSF participated in a live-streamed event that will help guide national and international STS studies in the decades to come.

Arts, Languages, and Philosophy

ALP has taken the lead on developing the new **Global Engineering Program**—a dual-degree program that has no equivalent in the Midwest. Students in this program will complete two bachelor's degrees, one in engineering and one in world languages and cultures. They will also have a year-long international experience that will comprise a semester abroad in a foreign university and a co-op in a multinational business. The first destination for GEP is France, with other international destinations soon to follow.
ALP also hosts the **LASTA** (Latin American Studies for Technical Applications) Minor. This unique minor, developed through a grant from the US Department of Education, allows students to develop deeper understanding of the cultures and languages of Latin America while simultaneously honing and implementing the technical skills they are acquiring in their engineering degree programs. This program requires an international experience in a Latin American country and has no parallel within or beyond the UM System.

An additional interdisciplinary grant from the National Endowment for the Humanities (with PIs from History and Political Science, English and Technical Communication, and Arts, Language, and Philosophy) supported the development of four additional, new courses that bridge humanities and STEM with a focus on Latin America. Both the LASTA minor and NEH Courses recognize the strong links (Engineers Without Borders, Geology courses, Engineering Projects) between Missouri S&T and Latin America.

Biological Sciences

The **Ozark Research Field Station** is a campus resource that is managed primarily out of Biological Sciences; its founding director, Robin Verble, is an associate professor of biology. The field station provides research opportunities for faculty and students from many disciplines and from multiple universities beyond the UM System. It has become a hub for collaboration among ecologists and environmental scientists across Missouri and has begun to draw research teams from out of state as well. A major infrastructure build-out at the Research Station is planned for 2022, to construct restroom facilities, bunkhouses, and a teaching laboratory.

Biological Sciences houses a new undergraduate **BioInnovation Certificate** that combines biology with entrepreneurship and is unique in the UM System. Biological Sciences has a new interdisciplinary bachelor's degree in Environmental Sciences that combines the study of biology, geology, and environmental engineering, economics, and humanities. This new degree program was approved in 2021.

English and Technical Communication

The Department of English and Technical Communication has recently revamped its curriculum to create a unique BS degree in English and Technical Communication (these were formerly two separate degrees). Within this flexible and tech-centric degree program there are multiple tracks that students choose based on their career goals and interest areas. E&TC offers specialized minors in Game Studies and in Science Communication, which not only link to students' interests but also help prepare them for careers in these growing fields. The MS in Technical Communication is unique in the UM System and is attractive not only to campus students and 4+1 students, but also to working professionals, since the entire degree program can be taken online.

Psychological Science

The Department of Psychological Science is unique in the UM System for its focus on Industrial and Organizational Psychology; while most generic psychology departments prepare students for careers in clinical psychology and counseling, our department capitalizes on Missouri S&T's strengths to focus on preparing undergraduates and graduates to help manage corporate and organizational environments. Many courses are cross listed with Engineering Management, further underlining the close alignment of Psychology and STEM on the Missouri S&T campus.

The MS degree and all graduate certificate programs in I/O Psychology are available entirely online, in order to accommodate working professionals. The department is developing a new minor in Human Factors, a growing area of specialization related to helping organizations create workplaces where employees can thrive. The Department of Psychological Science has also been instrumental in the advancement of S&T's Smart Living signature area.

History and Political Science

Missouri S&T's department of History and Political Science is the only one in the system to offer a BS in History. This BS creates opportunities for students to double major in history and engineering quite easily, and the history program itself has greater emphasis on science and technology than do its counterparts across the UM System. Examples of STEM-focused history and political science courses at Missouri S&T include History of Technology; Twentieth-Century Technology and Society; History of Science/History of Science in Latin America/History of Women in Science/History of Medieval and Early Modern Science; American Environmental History, Architecture, Technology, and Society; and Science, Technology, and Innovation Policy.

The department of History and Political Science is comprised of productive, award-winning scholars who are national and international leaders in their fields.

Teacher Education and Certification

The Department of Teacher Education and Certification is Missouri S&T's newest academic department. It already houses more than 100 students intending to seek secondary teacher certification in one of nine content areas (Math, Chemistry, Physics, History, English, Psych, Biology, BIT) or elementary/middle school certification with a focus on STEM education.

A new BS degree program in Education was approved in 2021. Plans for a graduate degree are also in the works, as this department fills a significant gap in the state's plans for workforce development in south-central Missouri. The Department of Teacher Education also houses the Little Miners Child Care Center (to open January 2022) and the Kummer Center for STEM Education.

Physics

The physics department offers BS, MS, and PhD degrees. The department has externally funded research programs in astrophysics; atomic, molecular, and optical (AMO) physics; as well as condensed matter and materials physics. The AMO physics program is the only such program in the University of Missouri System. The astrophysics program houses the only LIGO (gravitational wave) research group in the state. The department is heavily involved in interdisciplinary activities, in particular in materials research and high-performance computing. Three of the faculty members are Fellows of the American Physical Society (APS).

Mathematics and Statistics

The Department of Mathematics and Statistics teaches more student credit hours than any other department on campus. The department is in the midst of searching for a new Gary Havener Endowed Department Chair of Mathematics and Statistics and aspires to become a department ranked in the US top 100 for Ph.D. granting mathematics and statistics departments. They have recently launched an emphasis area in Data Science and Statistics and are working on proposals for a BS degree in Data Science. In addition to the data science and statistics emphasis, the undergraduate program in applied mathematics offers emphasis areas in actuarial science, algebra/discrete mathematics, computational mathematics, and secondary education. The master's program in the department offers emphasis areas in mathematics and statistics, while the doctoral program offers emphasis areas in mathematics, computational and applied mathematics, and statistics. The department also offers graduate certificates in actuarial science, financial mathematics, statistical methods in psychology, and statistics.

Chemistry

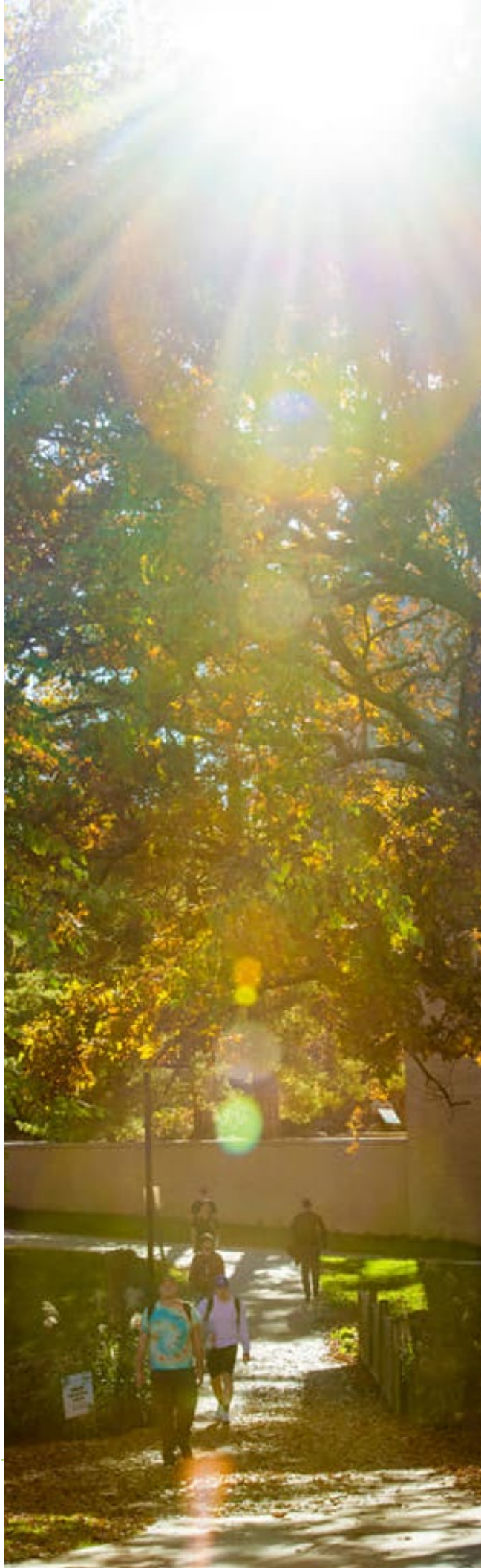
The Department of Chemistry has a strong culture of undergraduate research, which sets them apart from other chemistry departments in the UM System. Their strengths right now are in material chemistry, and the department has several faculty members who have recently earned patents and landed significant external grants, including one PI who wrote a successful MRI grant from NSF to launch a High-Performance Computing Center. Chemists at S&T work at the intersections of many disciplines on campus, and are integral to projects in chemical engineering, material science, and biomedical research.

The Vice Provost and Dean

Reporting to the Provost and Executive Vice Chancellor, the Vice Provost and Dean of the College of Arts, Sciences, and Education will provide academic, budgetary, and administrative leadership for the college. As CASE responds to the university's restructuring that will create its newest college (the Kummer College), the CASE Vice Provost and Dean must be able to highlight, support, and leverage existing strengths while also providing a vision for aligning the college more closely with the university's overall commitment to transformational and innovative research, education, and programming. Supporting student and faculty success, the Vice Provost and Dean will continue to build the college's financial resources and engage external partners who can invest in the continuing success of the college. The Vice Provost and Dean should be actively engaged in promoting equity, diversity, and inclusion within the college and across campus.

In close collaboration with the provost, other deans, and key stakeholders, the Vice Provost and Dean will:

- Advance the vision and mission of the university and the college to maintain an equitable, inclusive, and collaborative environment
- Lead the college in transforming education, research, and engagement, including through interdisciplinary partnerships with other colleges at Missouri S&T
- Foster and expand scholarship that is relevant to the needs and assets of the region and research that extends the colleges and institution's impact locally, statewide, nationally, and internationally
- Advance the college's efforts in research consistent with the university's goals of increasing research productivity
- Oversee the effectiveness of the college's academic programs through the assessment of student learning, program review, and outcomes
- Provide active and engaged support to students, including promoting a positive educational experience
- Advocate for the faculty and staff and support their professional development to enhance their success
- Evaluate current programs and explore and develop new programming to best serve students
- Serve as the external face of the college



The University seeks candidates who bring the following skills and experiences:

- Demonstrated scholarly and professional accomplishments commensurate with an appointment as a tenured full professor in the college
- Demonstrated commitment to diversity, equity and inclusion and experience building programs that clearly demonstrate those values and practices
- Experience facilitating interdisciplinary work that transcends traditional boundaries andinspiring and leading faculty in civic engagement and community-engaged scholarship
- Ability to lead a faculty community that encompasses a variety of scholarly disciplines
- Demonstrated administrative ability to delegate, prioritize, and make timely, transparent, and collaborative decisions
- Record of effective large-scale budget management
- An ability to identify and secure financial resources that support the College
- Experience with online, blended, and distance education
- Strong communication skills and capabilities to develop outcome-focused collaborations among all stakeholders, including the ability to identify mutual goals of all partners and to actively listen to key stakeholders and clearly articulate the College's vision, mission, and accomplishments in a way that will forge productive links and support from the University administration and external constituencies
- An ability to deal with difficult and challenging situations effectively with fairness, and for consensus building when making impactful decisions and changes.

Application materials should include a letter of interest addressing how the candidate's experience matches the position description, a current curriculum vitae, and a statement explaining how their previous and potential contributions enhance a culture of diversity and inclusion through administration, teaching, research, creative activity and/or service.

Nominations, applications, and inquiries of interest may be sent in confidence to the college's executive recruitment consultants:

Martin M. Baker, Managing Partner
Chelsie Whitelock, Principal
Buffkin/Baker
mstcasedean@buffkinbaker.com

MISSOURI S&T