

SPRING 2024

DEAN of the

College of
Natural Science



MICHIGAN STATE UNIVERSITY





EXECUTIVE SUMMARY

Michigan State University seeks a dynamic and forward-thinking leader to serve as the next Dean of the College of Natural Science. The Dean should embrace collaboration, inclusivity, and innovation, while fostering a nimble environment. As the chief executive officer of the College, the Dean will spearhead academic and operational planning, enhance the College's national and international scholarly reputation, and advocate for all disciplines within the College community while working to secure the resources required to fulfill the College's strategic goals.



The College of Natural Science (NatSci) is home to 27 departments and programs in the biological, physical and mathematical sciences. The college averages \$83M in research expenditures annually while providing world-class educational opportunities to more than 6,000 undergraduate majors and 1,200 graduate and postdoctoral scholars. There are 800+ faculty and academic staff associated with NatSci and more than 63,000 living alumni worldwide.

NatSci is committed to creating a collaborative and supportive environment in which differences are valued and all members of the NatSci community are empowered to grow and succeed. The vast diversity of disciplines housed within NatSci fosters a rich array of interdisciplinary research, educational partnerships, and collaborative programs that span the University. The College aspires to improve inclusion, enhance the undergraduate experience, strengthen graduate student success, grow research excellence, and cultivate community relationships.

The Dean of the College of Natural Science is responsible to the Provost and the President for the general administration of the College and will provide vision and direction, lead the College's academic mission, and head its development activities to ensure sufficient resources for furthering its priorities and strategic plan. The dean serves at the pleasure of the provost for a renewable five-year term, during which they will be a visionary leader with high academic standards and steadfast dedication to inclusive diversity.

The ideal candidate will possess a doctorate, have a proven track record of scholarly achievement, demonstrate the level of excellence commensurate with an appointment as full professor in a NatSci department, and bring relevant administrative experience to the table. The new dean will focus on fostering innovation and driving strategic growth, continuing the College's pursuit of excellence while harmonizing diverse disciplinary cultures and championing the university's land-grant mission. This pivotal role requires thoughtful communication skills and the ability to inspire and unite diverse constituencies. As MSU embarks on a journey of ambitious growth and investment in research and facilities, the Dean will play a central role in shaping the university's stature as a top research institution. The successful candidate will cultivate strategic opportunities and address key challenges, ensuring that MSU remains at the forefront of natural science education and research.



ABOUT THE COLLEGE OF NATURAL SCIENCE

The College of Natural Science is home to multiple departments, programs, and centers with high impact in education and research. As the largest College at MSU, the College is central to the University's undergraduate teaching mission, providing general science and mathematics education to the majority of MSU's 51,000 students. NatSci is unique in offering undergraduate programs both in the conventional University-wide setting and in collaboration with other colleges across the University such as the College of Education, College of Engineering, and the Lyman Briggs College. A unique feature of the MSU campus is its departments in basic sciences that are shared with multiple colleges, creating a highly networked, interdisciplinary environment and a strong degree of cross campus collaboration.

The diverse research opportunities at MSU include interdisciplinary research centers with international scope. A combination of university-wide core facilities, research centers and institutes provide state-of-the-art resources in research instrumentation. We are committed to providing world-class facilities to researchers and graduate students across various areas of study in our research community.

VISION, MISSION, VALUES

The Michigan State University College of Natural Science (NatSci) is committed to creating a safe, collaborative and supportive environment in which differences are valued and all members of the NatSci community are empowered to grow and succeed. The following is the college's vision, mission and values, as co-created and affirmed by the NatSci community:

Vision:

A thriving planet and healthy communities through scientific discovery.

Mission:

To use discovery, innovation and our collective ingenuity to advance knowledge across the natural sciences. Through equitable, inclusive practices in research, education and service, we empower our students, staff and faculty to solve challenges in a complex and rapidly changing world.

#1
STEM ED
GATEWAY
COURSE

#2
NUCLEAR
PHYSICS
GRAD
PROGRAM

MSU RANKED
#2
LEARNING
COMMUNITIES
(Public Universities)

#5
PLANT
BIOLOGY
GRAD
PROGRAM

Core Values:

Inclusiveness - Foster a safe, supportive, welcoming community that values diversity, respects difference and promotes belonging. We commit to providing equitable opportunity for all.

Innovation - Cultivate creativity and imagination in the quest for new knowledge and insights. Through individual and collaborative endeavors, we seek novel solutions to current and emergent challenges in the natural sciences.

Openness - Commit to honesty and transparency. By listening and being open to other perspectives, we create an environment of trust where ideas are freely shared and discussed.

Professionalism - Strive for excellence, integrity and high ethical standards. We hold ourselves and each other accountable to these expectations in a respectful and constructive manner.

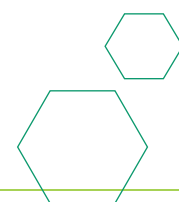
STRATEGIC PLAN

The College of Natural Science (NatSci) has produced a new [strategic plan](#) that articulates a shared vision and direction for the college. The plan is a co-created, consensus document developed by the NatSci community to identify strategic priorities and metrics that provide a five-year roadmap for the college during 2022-2026. It focuses on identifying overarching needs, orchestrating joint efforts, and unifying innovations toward our mission to use discovery, innovation, and our collective ingenuity to advance knowledge across the natural sciences.



The plan is a forward facing, living document that builds on existing strengths and develops new opportunities in a student-focused academic environment characterized by low barriers and a historic willingness to collaborate and cooperate in education, research, and service. The goal is that this plan will spark the vision, insight, and innovation necessary to successfully address current and future challenges, and to excel in this rapidly changing world. Taking action on our strategy will help us accomplish our mission and move toward the world we envision – a thriving planet and healthy communities through scientific discovery.

Key priorities of the strategic plan include improving inclusion, enhancing the undergraduate experience, strengthening graduate student success, growing research excellence, and cultivating community relationships.



UNDERGRADUATE AND GRADUATE EXPERIENCE

MSU NatSci offers 37 degree options and opportunities to 6,000 undergraduate students in undergraduate research, education abroad, and other enrichment programs. Many preprofessional health students also select NatSci majors to help launch their careers in medicine, optometry and other health professions. The education and experience provided allows students to excel at understanding the complex challenges facing the sciences in the 21st century.

MSU NatSci has extraordinary faculty and provides world-class facilities with a proven record of success to over 1,200 graduate students. Graduate students are able to explore and develop their academic interests by utilizing a network of 325 faculty members and 30 degree programs to enhance scholarship in their chosen field. NatSci hosts 14% of all grad students and 27% of Ph.D. students at MSU, with the College enrolling 156 master's students and 915 doctoral students in discipline-based and cross-disciplinary programs in FS23. The integrative nature of graduate education is the foundation of MSU's philosophy that the future of science relies on collaboration and connections among all disciplines.

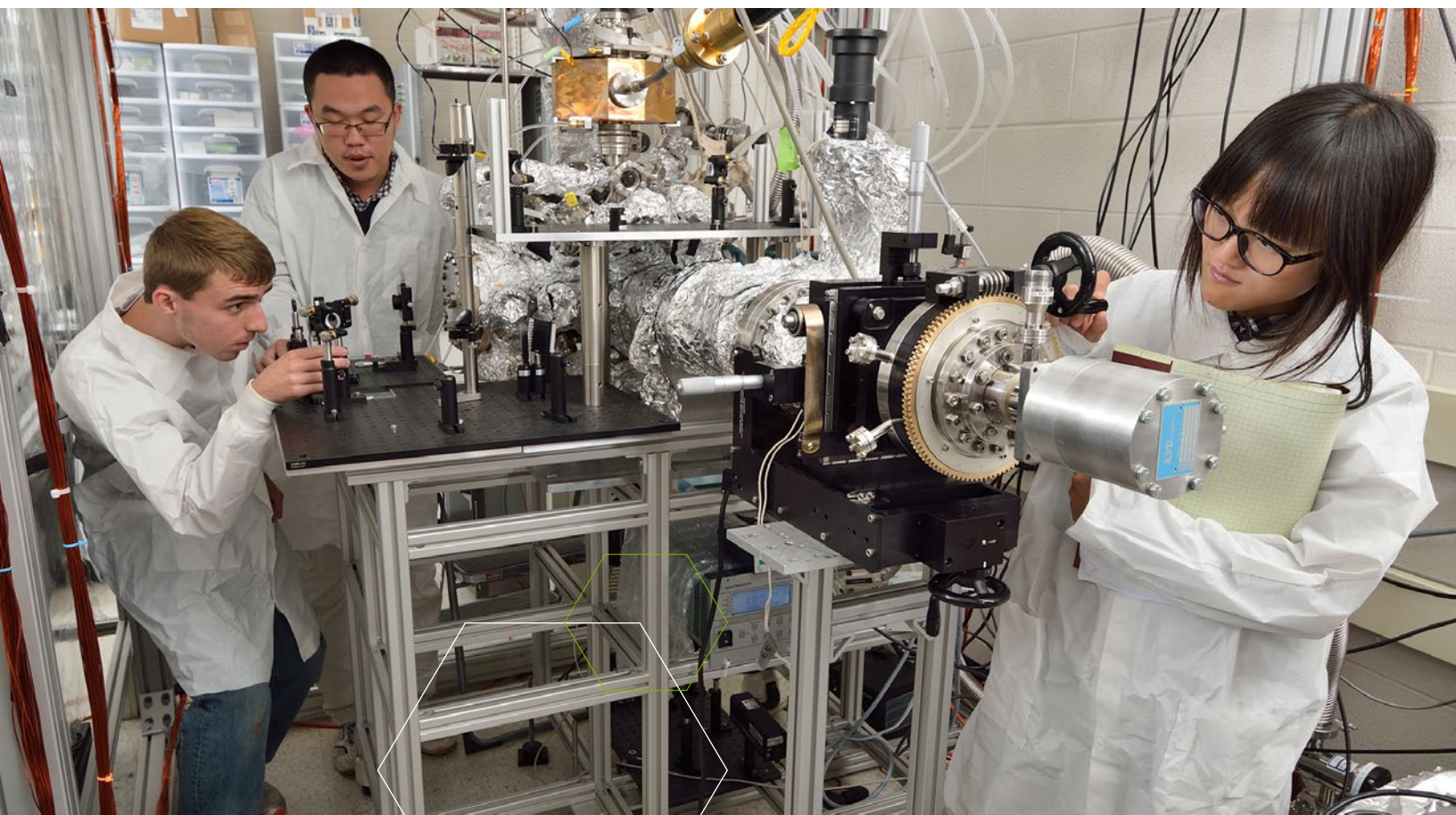
The undergraduate student population is made up of 81% in-state, 13% out of state and 6% international students with 25% identifying as first-gen students and 23% Pell-eligible. The college has developed a range of programs that enhance student opportunities and showcase their success. The Dean's Research Scholars program, in its 12th year, comprises an outstanding group of undergraduate students who serve as ambassadors to the college, sharing their research and classroom experiences with MSU alums to showcase the student experience on campus, in the classroom and in the laboratory. The Dow STEM Scholars Program assists students' transition into college, helping them develop the skills essential to earning a STEM degree. The Charles Drew Science Scholars program builds an all-encompassing college experience for students, including academic assistance and support for academically talented first generation and historically underrepresented undergraduate students pursuing degrees in NatSci. The Drew Scholars builds an inclusive multicultural and multi-racial community of science students that pursue the goal of "Transforming the Face of Science" to address the nation's challenge of diversifying the STEM talent pool and workforce.

FACULTY AND STAFF

Faculty members in the College of Natural Science have gained a national and international reputation for the quality of their teaching and research. Among the college's faculty there are 52 endowed chairs and professors and distinguished scholars whose excellence has been recognized by Guggenheim, Howard Hughes Medical Institute and National Academies of Science honors.

The college has approximately 280 tenure-system faculty and 160 non-tenure teaching faculty and academic staff with a primary assignment in the College of Natural Science. There are an additional 50 non-tenure academic staff supporting classroom instruction and the student experience. Many of the tenure system professors hold appointments with two or more academic departments and appointments in research institutes and laboratories. There are 100+ Fixed Term Faculty and 50+ Academic Staff in roles that are primarily classroom teaching positions.

A cadre of outstanding clerical technical and administrative professional staff provide students with a connected educational experience and support and guidance as they contemplate their path and chart their course. The staff also collaborate on faculty research initiatives and outreach activities.





RESEARCH

The College of Natural Science has developed an extensive research enterprise. In FY23, the College administered \$83M in total expenditures from externally funded research support. NatSci faculty, staff and students are well known for the breakthrough solutions to some of the world's most challenging problems. These innovations include the discovery of the cancer chemotherapy treatment, Cisplatin, to the engineering of oil-rich plants for biofuels to more nutritional food products, discovery of new antimicrobials, and the development of leading-edge “green” chemistry for drug-synthesis. These and other achievements place the college at the vanguard of scientific knowledge.

A collaborative environment across disciplines enhances the ability to define and solve fundamental problems. World-leading research centers and facilities such as the Facility for Rare Isotope Beams, the Great Lakes Bioenergy Research Center and the MSU-DOE Plant Research Laboratory add to the capabilities that are offered to students and the world. Home to the No. 2 nuclear physics graduate program in the nation, MSU is shaping the next generation of nuclear scientists who will advance the boundaries of knowledge.

A recent MSUToday article shared that an international research team working at the Facility for Rare Isotope Beams, or FRIB were able to produce 5 elements that do not exist on Earth, but only on neutron stars. The team was able to do so with the accelerator and FRIB is the first one to produce these 5 and many more to come. FRIB is a preeminent facility, home to the world's most powerful heavy-ion accelerator. Funded by the U.S. Department of Energy Office of Science, the state of Michigan and Michigan State University, the FRIB creates breakthroughs in basic science that yield applications for a healthier, safer, more sustainable world.



Industry relations and technology transfer play important roles in translating groundbreaking work to the real world. Faculty work hand-in-hand with MSU Technologies to facilitate the commercial development and public use of technologies and copyrightable materials developed. The goal is to move scalable technologies from the lab to the marketplace to improve lives and communities locally, regionally and around the world. The top-notch Office of Research Support provides outstanding assistance to faculty members as they identify grant opportunities and develop proposals to support their work.



THE DEAN OF THE COLLEGE OF NATURAL SCIENCE

As the visionary leader of the College, the Dean will be energetic, foster innovation, and promote collaboration throughout the academic and research landscape. In this critical role, the Dean spearheads the strategic planning, efficient management, and enhancement of academic and research initiatives within the College. Moreover, the Dean cultivates impactful partnerships and drives interactions across MSU's diverse communities, collaborating closely with senior leaders and administrators to set and realize institutional priorities.

The Dean holds financial and administrative management responsibility for the College, guiding and managing a general fund operating budget (FY23) of \$102.5 million. The NatSci development office has raised more than \$9 million annually in each of the last five years and is launching a capital campaign in collaboration with the University. The Dean's Office employs 53 FTE faculty & staff that includes five Associate Deans (Research and Budgets, Undergraduate Studies, Graduate Studies, Faculty Development, and Strategic Initiatives), college-level student advising, a coordinator for Diversity, Equity and Inclusion, a grant pre-/post-award office, a CIO and IT support for the college, alums and development office, and a marketing office.

The Dean leads College efforts for student success, accreditation, enrollment, academic program planning, assessment of curriculum and instruction, recruitment and evaluation of faculty and staff, professional development, research support, budgeting and management of funds, and allocation and use of facilities. The Dean is also responsible for promoting a culture of inclusive excellence and working to enhance success of people from underrepresented groups in NatSci fields at MSU.

The Dean is a member of the University Council, a unit of academic governance at Michigan State and meets regularly with and solicits the views of the College Advisory Council, a group of faculty, students, and staff who advise on policy and evaluate curricular changes prior to their submission to university-level governing bodies. They are also a member of the Provost's and President's Council, working with other University leaders to advance MSU's strategic goals.

Following the highly successful tenure of retiring Dean Phillip M. Duxbury, the incoming Dean will have an opportunity to build on the considerable strengths of this large and complex academic enterprise. The new Dean will lead College growth strategies and opportunities for investments, work to identify resources for implementing them, and allocating those resources appropriately.



CHALLENGES AND OPPORTUNITIES

The Dean's arrival at MSU coincides with the appointment of a new President and the fresh energy that comes with a new generation of dynamic senior leaders. This affords a unique opportunity to collaborate and harness the institution's existing strengths while embarking on innovative initiatives. Together, there is potential to spearhead transformative programs, projects, and initiatives that will leave a lasting imprint on the university's trajectory.

NatSci is the largest academic unit within Michigan State University and encompasses a wide array of disciplines. The breadth and depth of its academic offerings provide students with diverse learning opportunities and possibilities for interdisciplinary collaboration. The college fosters strong partnerships and collaborations; these partnerships enhance

490+
FACULTY

60
NAMED
CHAIRS/
PROFESSORSHIPS

8
NATIONAL
ACADEMIES
MEMBERS


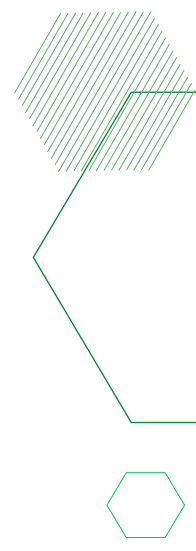
1,200
GRADUATE
STUDENTS

6K
UNDERGRAD
STUDENTS

research and education opportunities, facilitate technology transfer, and promote innovation. The college encourages faculty and students to collaborate across traditional disciplinary boundaries and has programs designed to engage students in hands on, immersive learning experiences.

The Dean of the College of Natural Science has numerous opportunities to advance research, education, and diversity initiatives. Addressing challenges related to budget transparency, faculty support, and organizational dynamics will require strategic leadership and effective communication. The leadership agenda presented below summarizes stakeholders' views of the key opportunities and challenges for candidates to consider:

- **Partner and collaborate within the college and university and with industry leaders.** Building upon MSU's diverse academic landscape and its established culture of collaboration, the Dean will seek to foster interdisciplinary initiatives and leverage existing connections to industry and government that build new relationships between colleges, departments, and research centers. These initiatives will promote innovation and address complex scientific challenges whose resolution requires a synthesis of diverse skills. The dean will be expected to partner with MSU's deans and newly appointed President Kevin Guskiewicz to advance MSU goals.

- 
- **Spearhead fundraising efforts and secure financial support to meet the needs of students, faculty and staff.** The dean will lead the crafting and implementation of a new capital campaign, leveraging the college's strengths and partnerships to secure vital resources for strategic initiatives and program development. The campaign will cultivate relationships with donors, alums and industry partners and identify and nurture strategic partnerships that can generate revenue streams and foster collaborations while advocating for funding and budget allocation from university leadership.
 - **Infrastructure and Facilities:** With a \$650m Department of Energy facility and nationally recognized programs in neuroscience and plant sciences (among others), the Dean will capitalize on MSU's unique assets to drive research excellence and attract top talent. Maintaining and upgrading laboratory facilities, equipment, and infrastructure within NatSci's departments requires significant capital investment to leverage the recruitment and retention of outstanding faculty and graduate students. The planned Engineering and Digital Innovation Center is an exciting example of partnership between colleges that will provide a foundation from which MSU responds to industry needs and student demand. The Dean will increase the college's role in supporting the economic development in Michigan, this includes leveraging the opportunities provided by FRIB for heavy-ion radiation testing of integrated chip-based systems, providing research infrastructure for growth in novel materials, and pursuing emerging initiatives such as semiconductor research.
 - **Embrace and support a focus on “growing and supporting a welcoming, diverse community that empowers the best outcomes for all regardless of role, identity, or ability status.”** The Dean will embrace the college's commitment to enhancing diversity and inclusion efforts, particularly in faculty, staff and student recruitment. The Dean will pursue opportunities relative to student support services, aiming to not only increase representation, but to create an inclusive environment for all. The college is committed to creating a supportive and welcoming environment where all students and employees can pursue personal growth and academic and professional success. Clear and trackable goals have been set and the dean will support, foster and drive these initiatives.
- 

- **Undergraduate Education and Support:** NatSci plays a tremendous role in undergraduate education, providing classes taken by the majority of MSU undergrads. The dedicated faculty and staff in NatSci have transformed many courses using evidence-based teaching practices and are continuously working to improve student learning and success in these courses. A key priority will be to address resource constraints imposed by enrollment pressure that pose challenges to providing quality education and support services for students. The Dean will thoughtfully lead the conversation and strategic approach to addressing the complicated task of academic resource planning that the centralized admission and funding model creates.
- **Leading through transparency and respect.** NatSci's departments possess wide-ranging cultural differences, particularly regarding promotion and tenure standards and student support needs. The dean will foster a culture of collaboration and mutual respect to support the college's collective goals and will have a deep understanding of the budget complexities and resource allocation challenges facing the college and its departments. Through strategic planning and advocacy, the dean will optimize a transparent process of budget allocation and seek additional resources to advance key priorities, ensuring the college's continued growth and excellence.





205
SUPPORT
STAFF

63K
ALUMS

\$83
MILLION
RESEARCH
GRANTS

27
DEPARTMENTS
+ PROGRAMS

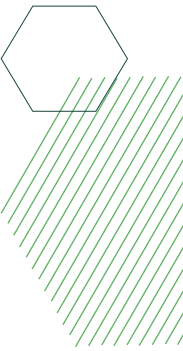
37
DEGREES

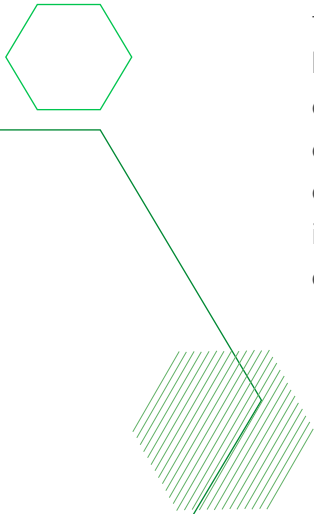
Professional Qualifications

The Dean of the College of Natural Science should be a values-based leader who is inclusive, embracing the energetic and dynamic environment created by the faculty, staff and students. The dean should be a leader who is transparent, with high emotional intelligence and clear communication skills who is committed to building and enacting the plans and strategies that reflect consensus within the college and that advance MSU as a whole.

The Dean's success will hinge on administrative acumen, visionary outlook, and unwavering dedication to the mission, vision, and values of the College. The Dean will have a deep intellectual breadth coupled with strong leadership and managerial competence, inspiring faculty to excel in both pedagogy and scholarly pursuits. Given the diverse academic landscape and sophisticated nature of the unit, aptitude in interdisciplinary collaboration is vital.

The Dean must exhibit exceptional communication skills, fostering meaningful connections and cultivating a culture of collaboration amidst varied disciplinary backgrounds. Fiscal prudence, political astuteness, and an entrepreneurial mindset are paramount for navigating the multifaceted constituencies within the institution. A deep-rooted commitment to teaching and an enthusiastic embrace of MSU's land-grant mission are imperative qualities for prospective candidates, demonstrating a holistic dedication to the university's educational ethos and broader societal impact.





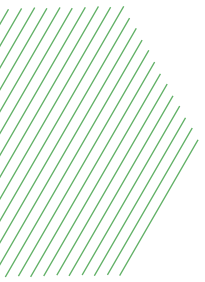
The Dean serves at the pleasure of the provost for a renewable five-year term, during which they will be a visionary leader with high academic standards and steadfast dedication to centering diversity, equity, and inclusion. The ideal candidate will possess a doctorate, have a proven track record of scholarly achievement, demonstrate the level of excellence expected of a full professor in a NatSci department, and bring relevant administrative experience to the table.

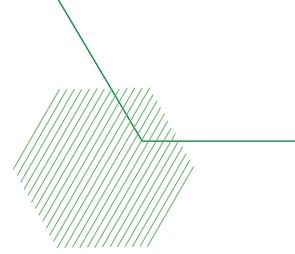
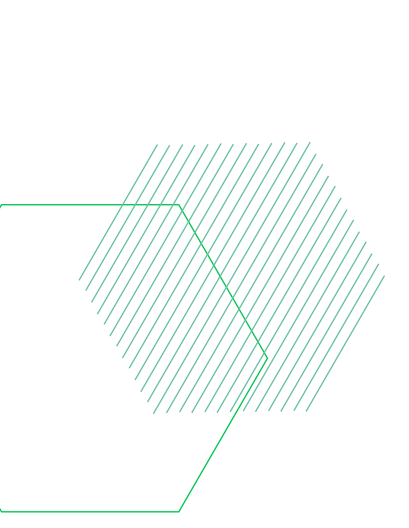
While no one person will possess them all, the successful candidate will demonstrate many of the following experiences and skills:

- Intellectual and academic leadership; evidence of distinguished teaching and scholarship; commitment to academic excellence; passion for students, research, and service; dedication to the mission and vision of MSU and the College of Natural Science
- Ability to build a shared vision for NatSci through bold, inclusive, and collaborative leadership that engages all stakeholders in a shared commitment to the lasting success of the College
- Champion the natural sciences and all NatSci constituent disciplines across campus and beyond via purposeful and proactive engagement with University administrators, local and state government officials, donors, alums, and media
- Support the recruitment, professional development, and retention of faculty and staff who support the University's research and educational missions
- Advance a culture of diversity, equity, and inclusion
- Sustain and enhance excellence and innovation in the College's teaching and student support programming
- Engage transparently with NatSci students and student governance to increase awareness and understanding of College priorities and to align aspirations for curricula, pedagogy, the student experience, and the culture of the College
- Establish strong consultative and collaborative relationships with Department Chairs and Center/Institute Directors, as well as with leaders across campus
- Support and facilitate interdisciplinary initiatives with other colleges and schools within the University
- Listen to the valuable perspective of staff and provide exemplary support for the wellbeing and professional advancement of all College employees
- Enhance the financial resources of the College through development activities
- Build external partnerships with industry and philanthropic foundations
- Address the capital needs and advance facility renewal across the College

MICHIGAN STATE UNIVERSITY

Founded in 1855, [Michigan State University](https://aiis.msu.edu/land/) is the premier land-grant University in the United States and is one of the top research universities in the world. Michigan State University has been advancing the common good with uncommon will for more than 165 years. MSU collectively acknowledges that Michigan State University occupies the ancestral, traditional, and contemporary Lands of the Anishinaabeg – Three Fires Confederacy of Ojibwe, Odawa, and Potawatomi peoples (<https://aiis.msu.edu/land/>). A top global university, MSU pushes the boundaries of discovery to make a better world while providing students with life-changing opportunities. Top-ranked programs, high-quality opportunities and a diverse, inclusive and collaborative community enable Spartan students to create personalized paths that prepare them to succeed and lead. MSU's rising research funding, nationally recognized faculty and programs, and innovative research facilities push the boundaries of discovery and yield solutions that make daily life better. Wherever you go, there are Spartans working to make a better world.





MSU was established to make higher education broadly available for the benefit of society and the public good and served as the model for the Morrill Land-Grant Colleges Act of 1862. MSU has evolved into a world-class University, offering a full spectrum of programs and attracting gifted professors, staff members, students and postdocs. The University has been an elected member of the Association of American Universities since 1964. Michigan State enrolls 40,483 undergraduate and 10,833 graduate and professional students, 26.6% of which are students of color and 8.7% are international students.

The MSU community includes more than 5,500 faculty and academic and support staff and an alums network over 500,000 strong. Furthermore, MSU ranked in the top 50 research universities in Washington Monthly 2022 rankings with over \$750 million in research expenditures in 2022, over 3,300 faculty inventions and more than 100 institute and centers across campus. Learn more about MSU: <https://msu.edu/about/facts>

Michigan State is located in East Lansing, a vibrant college community with a population of over 47,000 just three miles from Michigan's capital, Lansing, the hard-working heart of Michigan. The urban-suburban area offers countless activities and things to see and experience — from art galleries, concerts and restaurants to gardens, parks and trails. The Lansing Chamber of Commerce 2020 report, **State of the Lansing Region Benchmarking Report**, highlights the region's assets including over \$3 billion in new investments in a diverse range of projects such as one of the world's leading particle accelerator facilities, a new hospital, mixed-use buildings, insurance headquarter expansions, manufacturing ventures, and agricultural processing facilities. The region is well positioned on the national and global stage, competing for and attracting significant foreign investment and Fortune 500 companies. These diverse and abundant opportunities draw multicultural professionals, students, seniors and families to East Lansing and helped land the city multiple times on the **Livability.com Top 100 Best Places to Live**.



NOMINATION AND APPLICATION PROCESS

Opus Partners is assisting the University with this search. Inquiries, nominations, and applications are invited, especially from those with a demonstrated understanding of the challenges faced by members of underrepresented and/or marginalized groups in STEM and the visible and invisible institutional structures needed to increase diversity, equity, inclusion, and belonging (DEIB) in educational settings.

Interested candidates should submit in electronic form (Microsoft Word or Adobe PDF files preferred) a curriculum vitae and letter of interest addressed to the search committee. Materials should represent qualifications relative to the opportunities and challenges described in this document, inclusive of a statement detailing how your past and future work will contribute to advancing MSU's commitment to inclusive excellence. Please also include a statement addressing how past and /or potential contributions to diversity and inclusion will advance MSU's commitment to inclusive excellence. Please send application materials to the Opus consultants leading the engagement – Craig Smith, Partner, Kenna Boyd, Associate Partner, Marisea Rivera, Senior Associate via **MSUNatSciDean@opuspartners.net**.

MSU is an affirmative-action, equal-opportunity employer. MSU is committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. The University actively encourages applications and/or nominations of women, persons of color, veterans and persons with disabilities.



College of Natural Science
MICHIGAN STATE UNIVERSITY

NATSCI.MSU.EDU