Missouri State University

Mission

Missouri State University is a community of citizen scholars committed to public affairs. Our innovative teaching, research and service create transformative experiences that benefit individuals and society.

Vision

Missouri State will be the nation's leading public affairs university, delivering on our mission by cultivating civic responsibility and igniting social and economic opportunity.

Values

As a vital component of our public affairs mission, Missouri State University has long embraced ethical leadership, cultural competence and community engagement as the three foundational pillars of our institutional identity. We reaffirm and elevate these enduring commitments by formally adopting them as our core university values.

Ethical Leadership

We value ethical leadership by making informed decisions and engaging with others through integrity and transparency to pursue our goals. As ethical leaders, we are citizen scholars who take action to contribute to the common good.

Cultural Competence

We value cultural competence by respecting and appreciating individuals for who they are. Together, we foster civil discourse, awareness and action to create a culture of connection and mutual understanding.

Community Engagement

We value community engagement by embracing our responsibility to act with courage and creativity to foster civic growth. We recognize the needs in the communities to which we belong, then contribute knowledge and work alongside the community to meet those needs.

We are committed to our public affairs mission, enacting these values by cultivating civic virtues and strengthening the bonds that unite people.

CNAS Strategic Plan 2026

Academic Opportunities and Innovation

Focus time and resources on interdisciplinary work, including working towards an interdisciplinary PhD program in CNAS.

Focus time and resources to use university definition of experiential learning to ensure that all CNAS majors have experiences prior to graduation.

Community Partnerships and Economic Development

Continue collaborations with NPS; OEWRI; CRPM; Project WET, WILD, etc; and more.

Continue K-12 outreach activities such as OSEF, regional Science Olympiad, elementary Science Olympiad, Pummill Relays, and Boy Scout Merit Badge Day.

Institution of Choice for Students and Faculty

Continue to fund start-up packages for all new faculty hires and provide support for professional development for faculty and staff.

Focus on recruitment/retention of students through academic units, Student Success and Advisement Center.

- Continue efforts to decrease DFW rates
- Continue efforts to increase inclusive teaching practices

Student and Alumni Experience

Support active advisory boards for each unit

Invite alumni to campus to meet with students (panel discussions, class discussions, seminars) and link student organizations with alumni visits to campus

Support CNAS student organizations

Branding and Identity

Figure out a funding plan to continue to get stories for Discoveries.

Market what we are best at –

- Hands-on student research
- Student success/career development – success after graduation

Unit Strategic Plan

Biology

Academic Opportunities and Innovation

- Revise the BIO MS curriculum to include 3 pathways: thesis, non-thesis, and internship options.
- Work with the Biology Advisory Board to promote financial support for student summer research (fund raise to support 2 RAs per year). Encourage BIO-MS students to apply for summer RA positions-inform them this opportunity in January.
- More interdisciplinary seminars: involve student organizations to invite 1 speaker/semester.
- Develop and maintain an MS course (Essentials of Graduate Study in Biology) for entry-level graduate students to increase the rate of student success. MS student outcome data (from 2025 to2030) will be compared.
- Use Gray DI to prioritize departmental instructional and research needs (enrollment data analysis for the next 5 years).
- Encourage faculty to become certified master advisors and maintain their certification (yearly comparison, work with AATC).
- Update Biology webpage annually: faculty CV update and faculty list update.
- More research collaboration: Intra-Institutional collaborations (currently, Drs. Durham, Mirza, and Finn with OEWRI, Dr. Kim with PAM).
- Specify a new interdisciplinary PhD program (work with CNAS interdisciplinary research team)
- Continue the integration of field trips to engage students through experiential learning.

Community Partnerships and Economic Development

- One or more class visits industry (currently BIO508 and BIO512).
- Create a list of equipment after the completion of Blunt Hall renovations (Phase II).
- Assess the productivity of Research Productive Faculty (Nov 2024-Oct 2027): use their publication and grant record.
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- Support long-term partnership with the National Park Service and OEWRI through the office of Research Administration, staff hire/development, student accessibility, and collaboration.
- Continue K-12 outreach activities (OSEF, Science Olympiad).

Institution of Choice for Students and Employees

- Continue one-on-one meetings with prospective students touring our department and send a postcard to strengthen the sense of belonging and connection (prepare statistics for the next 5 years).
- Continuous support for faculty to invite Health Academy of Science high schoolers for hands-on activity on microorganisms.
- Encourage students to submit travel and research grant or scholarship applications.
- Continue effort to bring associate faculty salary to the CUPA median.

Student and Alumni Experience

- Invite alumni to the department seminar and BIO302 to enrich the student learning and create networking opportunities (advertising via SNS): 2 alumni speakers per semester.
- Update faculty mentoring documents every year to fully support new faculty.
- Promote faculty to position local grants (MDC, City Utility, etc.) as steppingstones to larger external grants.
- Collaborate with the Foundation Office to contact alumni for networking opportunities: Launch a crowdfunding campaign to secure funds to purchase a fish tank.
- Prepare a departmental Exit survey before graduation to get student feedback for better education.

Branding and Identity

- Post student spotlights and student success on FB, Instagram, and CNAS News.
- Highlight students and faculty attending conferences and publishing their research

Chemistry and Biochemistry Department
2025-2030 Strategic Plan

VISION	**The Department of Chemistry and Biochemistry at Missouri State University seeks to be recognized regionally and nationally for its academic programs, faculty and student scholarship, student success, service to the profession, and community engagement.**				
GOAL AREAS	**ACADEMIC OPPORTUNITIES & INNOVATION**	**COMMUNITY PARTNERSHIPS & ECONOMIC DEVELOPMENT**	**INSTITUTION OF CHOICE FOR STUDENTS & EMPLOYEES**	**STUDENT & ALUMNI EXPERIENCE**	**BRANDING & IDENTITY**
STRATEGIES	• Launch relevant and high-demand programs that position the department as a regional leader. • Modernize curriculum delivery and research infrastructure to ensure rigor, relevance, and seamless student progression. • Promote experiential learning through undergraduate/graduate research.	• Strengthen recruitment by highlighting program strengths and distinctive facilities. • Expand K–12 and community engagement to strengthen the STEM pipeline and regional impact. • Promote experiential learning through industry-linked applied projects.	• Promote proactive student support structures that reduce bottlenecks and improve retention. • Support faculty in their dual roles as educators and researchers.	• Connect current students and alumni through shared professional stories and career pathways. • Celebrate academic and research achievements through a robust recognition program.	• Project the Chemistry and Biochemistry as a modern, research-active, and R2-category–ready academic unit that combines high-impact scholarship with exceptional teaching. • Visually emphasize state-of-the-art spaces, instrumentation, and student-centered labs across digital and print media.
KEY TASKS	• Explore department's participation in the proposed multidisciplinary Ph.D. program. • Align the doctoral program with institutional R2 classification benchmarks. • Execute a multi-pronged strategy to replace the department's aging NMR to maintain ACS certification and research competitiveness. • Build hybrid/online options strategically to improve access and flexibility. • Explore new programs/tracks	• Enhance K–12 outreach through interactive demonstrations, campus visits, and teacher partnerships. • Increase participation in campus-wide events, interdisciplinary initiatives, and community-focused programs. • Provide analytical services for regional agencies/firms. • Explore internship opportunities for our students.	• Expand advising interventions, early alerts, and peer-mentoring models. • Strengthen faculty development through mentoring, teaching innovation workshops, and research support mechanisms. • Build in structured research-release time for faculty mentoring undergraduate and graduate student researchers. • Expand departmental support for faculty engaged in mentoring student research.	• Increase alumni engagement in panels, research talks, mentoring networks, and internships • Regularly highlight major student and faculty accomplishments in department communications. • Expand endowed and summer research opportunities. • Continue PASS tutoring	• Feature Roy Blunt Hall prominently in tours, websites, brochures, videos, social media, and admissions materials. • Create targeted and coordinated social media campaigns around the launching of the Ph.D. program; acquisition of a new NMR and major grants/awards/ research breakthroughs, etc. • Develop a unified brand narrative emphasizing innovation, access to modern facilities, and student-faculty collaboration.

DELIVERABLES	• New NMR instrument purchased, installed, and operational. • Ph. D Program proposal approved and implemented. • Formations of faculty research clusters. • Renovated labs and spaces operational. • New programs/tracks approved/implemented	• Active industry partnerships established. • Increase in internship/research participation for our students.	• Increase departmental support for faculty mentoring student research. • ≥20% Increase in external grant applications. • Improved Bachelor's Program retention and graduation rates. • Increased number of faculty certified as Master Advisors. • Enhanced faculty satisfaction/productivity.	• Increase in the number of Alumni giving talks/presentations • Develop and monitor alumni engagement metrics. • Increase Summer Research endowments. • 15% decrease in DFW rates	• Increased and coordinated social media campaigns • Updated recruitment materials. • Increased presence at regional conferences to promote the graduate program.

Computer Science Strategic Plan

G1: Academic Opportunities and Innovation

- Introducing courses based on Generative AI at undergraduate and graduate levels.
- Explore the development of graduate, undergraduate, and interdisciplinary certificates in emerging technology areas.
- Develop a new master's degree in Data Science.
- Develop a PhD program in Computer Science or Data Science.
- Explore collaborative PhD programs with other departments.
- Expand international collaborations with partner institutions in China, Vietnam, and other countries.
- Develop and implement two Merit Badges in Digital Technology and Programming to promote computer science engagement among middle and high school scouts.

G2: Community Partnerships and Economic Development

- Explore project collaborations with local industries and community organizations (e.g., Springfield Public Parks, City Utilities) to support public service initiatives.
- Explore opportunities for internships.

G3: Institution of Choice for Students and Employees

- Strengthening the computer science curriculum by offering new courses aligned with emerging technologies and industry demand, such as Large Language Models (LLMs), Natural Language Processing (NLP), and Quantum Computing.

G4: Student and Alumni Experience

- Invite alumni to deliver seminars and share professional experiences with current students.
- Engage alumni by inviting them to serve on the Computer Science Advisory Board.

G5: Branding and Identity

- Enhance the department's identity as a leader in Data Science and AI education in southwest Missouri.
- Position the Computer Science Department as a regional hub for computing education through NSF RET and REU initiatives, as well as workforce development proposals.

EGR Strategic plan

- ***Academic Opportunities and Innovation***
  Provide cutting-edge laboratory and classroom infrastructure
  Encourage students to apply to Internships
  Connect students to opportunities that help build their career
  Support students in passing their FE exam and preparing for their PE exam
  Encourage students to demonstrate commitment to community and professional service
  Expand scholarship opportunities for the students
  Increase enrollment and retention

- ***Community Partnerships and Economic Development***
  Conduct tours of facilities for industry partners, and host industry-sponsored Workshops and presentations
  Connect Internships and Job placements needs to the students
  Explore opportunities for scholarships for students
  Collaborative projects between the industry and the program
  Form an advisory board

- ***Institution of Choice for Students and Employees***
  - **SUPPORT FACULTY SUCCESS**
    Promote faculty collaboration on research and projects
    Connect faculty to career enhancing opportunities
    Provide cutting-edge laboratory and classroom infrastructure
    Promote and support innovative teaching practices
  - **ENHANCED OPERATION EFFICIENCY**
    Conduct continuous improvement to the program
    Efficient Academic Advising
    Build an effective marketing plan and awareness for the program
    Efficient student billing and financial processes between both universities
    Build efficient administrative support

- ***Student and Alumni Experience***
  Foster a supportive, engaging, and lifelong relationship with students and alumni.
  Enhance student experience through advising, mentoring, student organizations, and professional development opportunities.
  Encourage student participation in engineering societies, competitions, and service-learning activities.
  Strengthen career readiness programming, including resume development, interview preparation, and networking.
  Develop intentional alumni engagement strategies, including mentoring, guest lectures, advisory roles, and career connections.
  Track and celebrate student and alumni success, including licensure, employment, and professional achievements.

- ***Branding and Identity***
  Clearly communicate the value, impact, and distinctiveness of the engineering program.
  Develop and maintain a modern, informative, and student-focused website that highlights:
  - Academic programs and facilities
  - Career outcomes and licensure pathways
  - Industry partnerships and student opportunities
  - Student, faculty, and alumni success stories

  Ensure consistent messaging and visual identity across marketing materials, digital platforms, and outreach efforts.
  Leverage partnerships, alumni achievements, and student success to strengthen the program's regional and professional reputation.

Department of Mathematics Strategic Plan Alignment

2025-2027

Academic Opportunities & Innovation

- Encourage and support research productivity among faculty and students. Strive to increase publication rate and grant submissions.
- Pursue interdisciplinary collaboration for research and educational programs.

Community Partnerships & Economic Development

- Continue and strengthen partnership with American National (actuarial program).
- Expand partnerships with other business/companies e.g. Clinvest Research to support internships.

Institution of Choice for Students & Employees

- Hiring Goal. The focus of all ranked faculty hiring will be to:
    - Strengthen undergraduate and graduate programs.
    - Invigorate department research.
    - Expand interdisciplinary programs and research.
- Work with CSC, CNAS Advisors, and Admissions to recruit and grow the Data Science program by 20% per year.

Student & Alumni Experience

- Expand activity in department student groups KME, MAA, $(SM)^2TO$ to promote student and faculty engagement.

Branding & Identity

- Continue to promote and support our activities of Pummill Relays, Derivative Bee, and MAKO Undergraduate Research Conference.
- Expand engagement activities of students and faculty through Math Circles and speaker series.
- Work with the development office to create an endowed fund to cover costs of an annual mathematics lecture series at MSU.

PAMS Strategic Plan

Academic Opportunities and Innovation

- Continue to provide experiential learning in department
- Promote interdisciplinary computer science/quantum computing curriculum
- Continue efforts in interdisciplinary research and certificate programs
- Promote enhanced quality of online learning
- Promote increased research efforts geared toward formation of interdisciplinary PhD in CNAS

Community Partnerships and Economic Development

- Promote Public Affairs Mission through Baker Observatory, Seuss Day, Astro Briefs and related efforts
- Continue to work with local industry on joint projects
- Continue to seek student internships with local partners and industry
- Maintain department database of faculty expertise

Institution of Choice for Students and Employees

- Continue to work on marketing to attract students to department programs
- Continue to work on student retention efforts
- Promote leadership development in department (e.g., quantum computing, exploring formation of institutes)
- Continue efforts in providing name-recognized programmatic concentration areas
- Continue efforts in elevating research toward R2 goal
- Continue to develop student excellence geared toward STEM employment

Student and Alumni Experience

- Continue to promote student participation in organizations (e.g., clubs) and department activities
- Continue efforts to provide proactive student support
- Promote increased alumni engagement

Branding and Identity

- Continue to promote PAMS brand
- Continue efforts to connect PAMS students and alumni (e.g., in PHY 110)

SEES Strategic Plan and Goals 2025-2030 February 6, 2026

VISION

We envision a world where knowledge of **the Earth, its people, and its places drives transformative action toward** a sustainable planet. Uniting the power of geoscience, **geospatial innovation**, and **interdisciplinary collaboration**, we lead in understanding how Earth's systems and human communities shape one another. Through discovery, creativity, and global engagement, we empower scholars to envision—and build—a more resilient, equitable, and thriving world.

MISSION

The School of Earth, Environment, and Sustainability advances understanding of the relationships among **the geosciences, people, and places** through **interdisciplinary education and research**. We explore how Earth's systems interact with human societies across local and **global** contexts, fostering resilient and sustainable **communities** through informed discovery and collaboration.

GOAL #1 – Promote interdisciplinary research and opportunities for interdisciplinary curriculum development.

- Support and further integrate OEWRI and CRPM with SEES by promoting interdisciplinary research and encouraging collaboration among the centers and SEES faculty. Identify potential research strengths with a higher chance of securing external funding, then develop strategies to invest increased financial and human resources. Two or more new interdisciplinary research initiatives between SEES and OEWRI or CRPM will be launched each year, with **≥50% of SEES faculty** participating in at least one interdisciplinary project by Year 5. Over three years, an **increase in interdisciplinary grant proposals** submitted by SEES faculty and center collaborators by **≥15%**.
- Boost undergraduate and graduate students' involvement in research projects by offering more opportunities and structured programs within SEES. By Year 5, **≥80% of graduate students** will participate in interdisciplinary research projects.

Goal #2 – Develop facilities and experiential learning opportunities that will support our pursuit of excellence.

- Communicate the value and benefits of early participation in experiential learning for all SEES majors in the first year of their undergraduate program. By the end of the sophomore year, ≥**20% of all SEES majors** will have participated in at least one documented experiential learning activity (e.g., fieldwork research, lab research, internships, service learning, field trip). By the end of the junior year, we will increase to **≥70% of SEES majors, with 100% of SEES students participating before graduation.**

- SEES will provide at least **one Education Abroad** experience each year. Where appropriate, off-campus experiences that connect students with other cultures, fostering cultural competence and ethical leadership within our student body that embodies the MSU Public Affairs mission.

- **By Year 3, ≥75% of SEES upper-level and graduate courses with a lab or field component** will make documented use of experiential learning facilities such as Bull Shoals Field Station, Research Labs, or another outside-the-classroom facility.

Goal #3 – Continue to recruit, retain, and develop a diverse and strong faculty and staff. (Inclusive excellence, alignment of faculty roles and rewards)

- Maintain faculty and staff morale during the renovation of Blunt Hall Third Floor by encouraging participation in the SEES Seminar, on-campus events such as athletic games, and other team-building and social activities. At least **one new** incentive-based activity will be implemented each year to encourage participation (e.g., recognition, professional development support).
- A formal space utilization plan for renovated Blunt Hall areas will be completed and reviewed annually. **≥90%** of renovated space will be actively used for instruction, research, or experiential learning within one year of renovation completion.
- In Year 1, we will **identify gaps** in instrumentation and other equipment. In Years 2-4, SEES will **submit proposals** for equipment or other resources as needed.
- Attract and retain excellent faculty with strong research aptitude, especially in areas that generate external funding, and with a desire to excel in the classroom. Junior/pre-tenured faculty grant submissions will increase by **15% each year** over three years.
- SEES faculty and students will publish ≥25 peer-reviewed publications or outreach articles per year, highlighting SEES research. Seek to increase these publications to ≥30 by year 5.

Goal #4 – Increase the visibility and stature of the School of Earth, Environment, and Sustainability as we engage scholarship, teaching, and public outreach.

- Encourage and support capstone student projects and research initiatives that tackle community and industry challenges, fostering student innovation and civic engagement. Annually, **≥10 student projects** are formally showcased at professional meetings, community or industry events, or peer-reviewed publications.
- Effectively communicate the impact of research and scholarship to improve SEES, CNAS, and the university's reputation. Increase engagement on SEES communications platforms (CNAS NewsWatch, social media, newsletters) by 10–15% per year.
- SEES faculty will attend at least one professional conference annually. ≥50% of graduate students receive partial or full funding for conference participation within 5 years.

Goal #5 – Increase majors' numbers and retention rates of all SEES programs.

- Evaluate and restructure the curriculum for programs and certificates. Evaluate General Education course offerings to develop and execute strategies for boosting enrollment. Each SEES program increases enrollment by ≥20% over 5 years. First-to-second year retention rate improves by ≥10% within 3 years, with incremental annual targets that exceed university averages by year 5.
- Encourage the use and promotion of the SEES Success Center to decrease DFWs and identify students at risk. Faculty will continue applying strategies in their courses to reduce DFW rates and will report the annual impact of these efforts, with a ≥10% decrease in DFW rates in targeted courses over a 3-year period. By Year 5, **≥80%** of SEES courses will have documented strategies to reduce DFWs.
- Provide professional and engaging advising to connect with students early and often. Develop career maps for SEES majors and graduate programs, with suggested coursework and professional development milestones during degree completion and connections to a range of post-graduation career options that can be incorporated into advising sessions.
- Use community engagement activities, like the Discovery Center, to promote SEES within the community, attract potential majors, and boost enrollment. Seek one or more public-facing initiatives or partnerships per year that highlight SEES scholarship or outreach.