UNM | SCHOOL OF ENGINEERING

ANNUAL REPORT 2025

Update on Strategic Plan 2024-2028

A Note From the Dean

Last fall we published *Our Path Forward 2024-2028,* a strategic plan for The University of New Mexico School of Engineering, designed in line with *UNM 2040,* the university's strategic framework. It was the culmination of a year of listening sessions, leadership planning meetings and steering committee collaboration. The resulting roadmap provided a direction and framework for the next several years at the School.

Over the past year, we have worked to advance progress on the goals laid out in our strategic plan. This annual report is intended to inform our community of what has happened so far and how we will continue moving forward.

In the coming year, we will introduce three action teams charged with meeting our goal objectives. Led by our associate deans in collaboration with faculty and staff across the school, the committees will work to meet objectives in our six strategic areas.

I'm happy to share that we've made tremendous progress in our plan's first year. Thank you to everyone in our school who has worked to make these efforts successful.

Donna Riley

Jim and Ellen King Dean of Engineering and Computing

Our Goals

Improve Student Success Pathways

Develop Faculty and Staff

Build a Culture of Equity and Inclusive Excellence

Grow Research and Innovation

Develop and Expand Partnerships

Grow and Manage Resources

Vision

The School of Engineering is a vanguard for inclusive excellence, where everyone belongs, thrives, and shines. Through research, learning, and innovation, we serve the land and its people, designing solutions — including products, systems, and infrastructure — that transform lives and communities in New Mexico and beyond.

Mission

The School of Engineering provides accessible pathways and experiential learning opportunities to prepare a diverse, imaginative, and responsible engineering, computer science, and construction management workforce.

We conduct research with global impact that fosters healthy, resilient, and secure communities.

We leverage excellence across disciplines on our flagship campus and creative partnerships with government, industry, and local communities to realize impact, enhance economic development, and improve quality of life.

Improve Student Success Pathways

Objectives

1. Enhance our student support structure by integrating across teams.

2. Motivate and equip faculty to implement proven practices for student success.

3. Provide high-impact course environments from day one, incorporating experiential and community-engaged opportunities for every student every semester.

4. Design a common, meaningful first-year experience. or pre-major experience for all School of Engineering students.

5. Reimagine curriculum pathways, especially math pathways, critical degree paths, and recovery courses, to increase retention and reduce time to degree.

27

Teaching Innovation Fellowships awarded

DWF

Cut the DWF rate of CS105 in half in just two years

Our Progress

- **Grew and strengthened advisement across the School of Engineering**, forming a team that reports to an advising manager with a dotted line to department administrators. Added two permanent advising positions and temporary support which may become permanent with continued growth.

- **Held a Data Deep Dive** to establish greater understanding among School and departmental leadership of student success data and identify key success metrics.

- **Piloted a First-Year Engineering Experience course** in Fall 2024 and received the American Society for Engineering Education Best Paper Award for the design and analysis of course success.

- **Developed the Engineering Math Bridge,** a new math course pilot designed to prepare students for Pre-Calculus or Calculus 1 in one semester. The course will be piloted in Fall 2025.

- Redesigned CS105 (Introduction to Computer Programming Python) as a potential model for experiential and high-impact course design across the school. The **DWF rate for the course has been halved in just two years.**

- **Developed system to conduct exit interviews** for students leaving SoE.

- **Awarded 27 SoE Teaching Innovation Fellowships to 20 faculty members in Spring 2024, Fall 2024 and Spring 2025** to encourage and provide funding for innovative approaches to teaching.

- Associate dean for academic affairs and the first and second-year experience manager attended all first-year SoE courses and **worked with faculty to make connections with the Engineering Student Success Center.**

Develop Faculty and Staff

Objectives

1. Highlight, prioritize, and reward well-being (both physical and mental) to ensure optimal personal and professional performance.

2. Connect people to mission and develop capacities to achieve the mission, by incorporating this plan in performance review and recognition processes.

3. Appreciate, retain, mentor, and compensate talent as fully and equitably as possible.

Built career development opportunities for faculty and staff

Used data to advocate and deliver the 16 most-needed equity raises in SoE

Our Progress

- **Created associate dean for faculty affairs position** to attend to faculty development, equity and success.

- Associate Dean for Faculty Affairs Eva Chi hosted regular lunches **for lecturers, assistant professors and early-associate professors to discuss career pathways, tenure, promotion and more.**

- **Built career development opportunities into faculty startup packages.** Actively encourage new faculty to sign up for the 10-week faculty success program offered by the National Center for Faculty Development & Diversity. The opportunity is paid for by UNM's institutional membership with NCFDD.

- **Began improvements to the faculty promotion and tenure process**: Modified faculty ballots, streamlined peer observation and annual review, and revised the P&T Q&A sheet to increase transparency, consistency and fairness.

- **Overhauled Regents' and Dean's Excellence Awards to improve transparency and equity.**

- **Overhauled the School of Engineering Annual Awards for equity in prize money** awarded to faculty and staff and developed specific criteria for how recipients are selected.

- **Piloted the Staff Professional Development Program**, allowing staff from any department in the school to apply for funds to attend professional development opportunities.

- **Applied a consistent data-driven process to advocate for equity raises.** The sixteen positions with the highest priority have been approved. Additional equity raise requests have been made for 14 staff and 20 faculty are pending approval and funding from the Provost's Office.

GOAL THREE

Build a Culture of Equity and Inclusive Excellence

Objectives

1. Cultivate a culture of community, respect, civility, and belonging.

2. Review and develop policies, processes, and practices supporting accountability for equity.

3. Enhance equity in student success by sharing student success data, strengthening ties between the Engineering Student Success Center, advising staff and faculty.

2 DAYS
Hosted an inaugural summit on JEADI topics in SoE
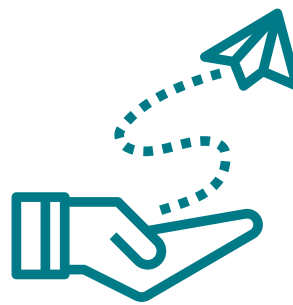
Piloted a first-year engineering experience

Our Progress

We recognize that building a culture of equity and inclusive excellence stretches beyond one team or goal. Progress outlined in this section may overlap with work completed in other strategic areas.

- **Re-wrote the job descriptions of associate deans to include accountability for equity.**

- **16 faculty equity raises were approved** with funding requested to complete more (see Goal Two for additional details).

- **New, transparent processes created for selecting recipients of Regents' and Dean's Excellence Awards**, as well as School of Engineering annual awards.

- **Hosted the inaugural two-day JEADI Summit** to foster discussions of justice, equity, accessibility, diversity and inclusion in the School of Engineering.

- **Hosted speakers with unique and diverse expertise** for public lectures about: Indigenous language and culture revitalization through augmented reality, racialized trauma in engineering, and intersectional equity at HSIs.

- **Received a $1.2 million grant** from the National Science Foundation to create a Center for Equity in Engineering in Fall 2024.

- **Piloted a first-year engineering experience course** that activates student funds of knowledge. Two sections of the course will be offered in Fall 2025.

- Developed plans to install a display outside the dean's office that **reflects the school's students, faculty and staff.**

Grow Research and Innovation

Objectives

1. Increase the number and success of large, collaborative proposals and UNM's leadership of large, multi-institutional proposals.

2. Restructure Category 2 centers to align with faculty strengths and national priorities, provide support resources to a broader group, and balance new investments with sustaining success.

3. Strengthen activities, support, tracking, reward structure and recognition related to entrepreneurship, innovation, community-engaged research and economic development.

4. Broaden the diversity, sponsor base and funding mechanisms for School of Engineering research awards.

5. Create a support system that enables UNM Engineering to conduct research in a safe and secure manner.

ANNUAL RESEARCH EXPENDITURES IN MILLIONS

Year	Expenditure
2021	34.9
2022	39.4
2023	43.3
2024	53
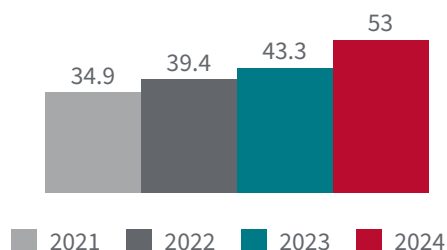
$53M
2024 RESEARCH EXPENDITURES

Our Progress

- **Increased research expenditures by 20% in FY 2024 to $53 million.**

- School of Engineering faculty **patented 26 inventions** through UNM Rainforest Innovations in 2024. The top 3 patent-producing UNM departments were all in SoE, last year.

- **Created the School of Engineering Research Support Office**. The RSO provides support to faculty applying for large research grants, financial management assistance for category 2 centers, and will grow to offer project managers for SoE research hiring.

- **Facilities and Administration funds have been returned to faculty and departments** starting in 2023 to help pay for costs not covered by research grants.

- **Committed to hosting regular safety meetings in SoE departments.**

- Research support officer and associate dean for faculty affairs began **collaborated to provide red team review of large proposals and an NSF CAREER cohort workshop for early-career faculty.**

- **Five SoE faculty have received NSF CAREER awards from 2023-2025. Two faculty received PECASE awards in 2025**.

- **Increased the number of proposals funded by the National Institutes of Health and Intel.**

Develop and Expand Partnerships
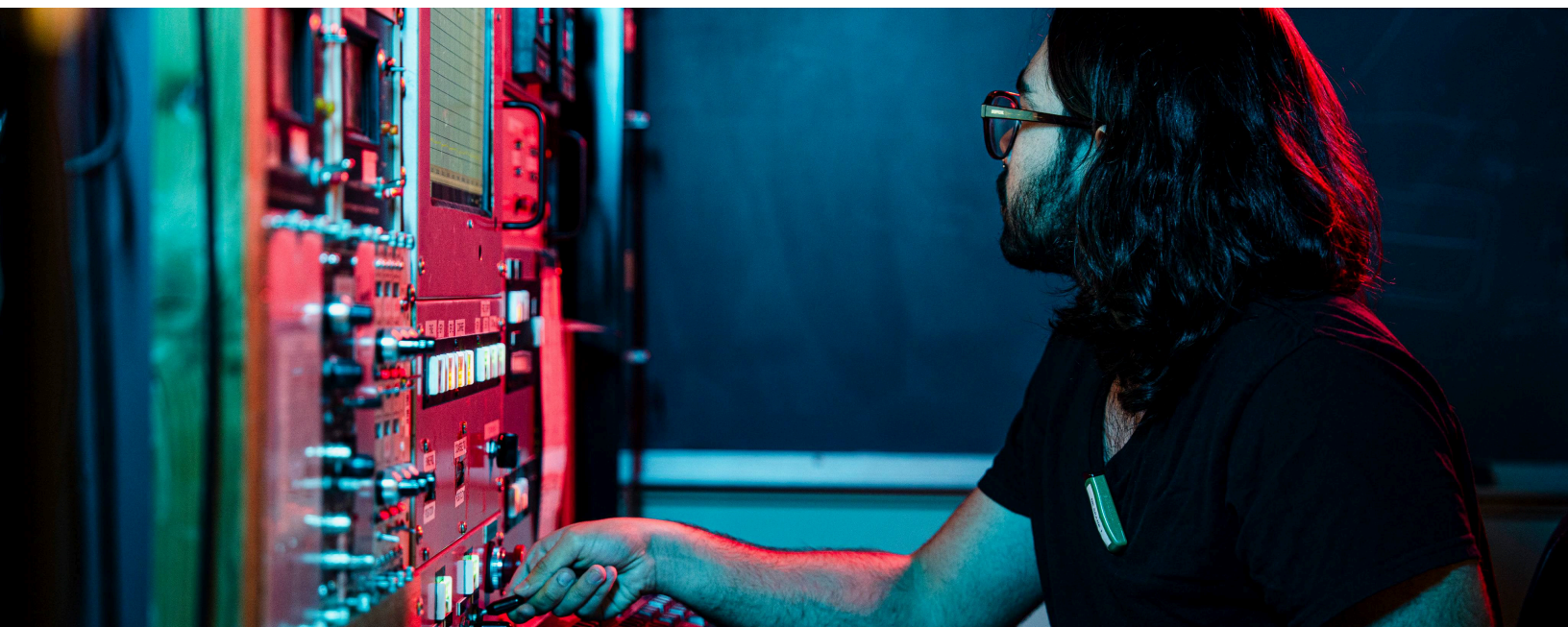
Objectives

1. Improve pathways to UNM by strengthening community college and K-12 partnerships.

2. Develop partnerships for community engagement, public service and the arts in New Mexico.

3. Grow strategic partnerships with Industry, government labs, and the entrepreneurship and economic development ecosystem in the state.

4. Strengthen on-campus partnerships (e.g., with the Global Education Office, Athletics, interdisciplinary programs, other colleges and schools around campus).


Began a lecture series focused on entrepreneurship and innovation
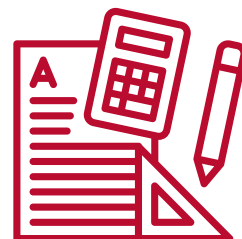
Developed pilot engineering math bridge course

Our Progress

- **Improving degree pathways** with the Southwestern Indian Polytechnic Institute and continued developing UNM-Los Alamos bachelor's degree in Mechanical Engineering.

- **Hired a community college recruiter to work in the Engineering Student Success Center** alongside the recruiter focused on high school students.

- **Hosted the Governor's STEM Challenge** for high school students across New Mexico focused on healthcare (2024) and transportation (2025).

- **Host three residential summer programs for high school students annually** at the School of Engineering, including a brand new camp focused on nuclear engineering (Summer 2025).

- **Strengthened connections with the National Renewable Energy Lab** and sent faculty to attend their summer program.

- **Added associate lab directors from the National Renewable Energy Lab and Los Alamos National Laboratory to our Executive Leadership Board.**

- **Started the Dean's Distinguished Lecture Series focused on entrepreneurship and innovation**. Hosted five events during the 2024-2025 academic year.

- **Collaborated with University College to develop a pilot Engineering Math Bridge course** that will help students get ready for pre-calculus or calculus 1 in one semester. The pilot course will launch Fall 2025.
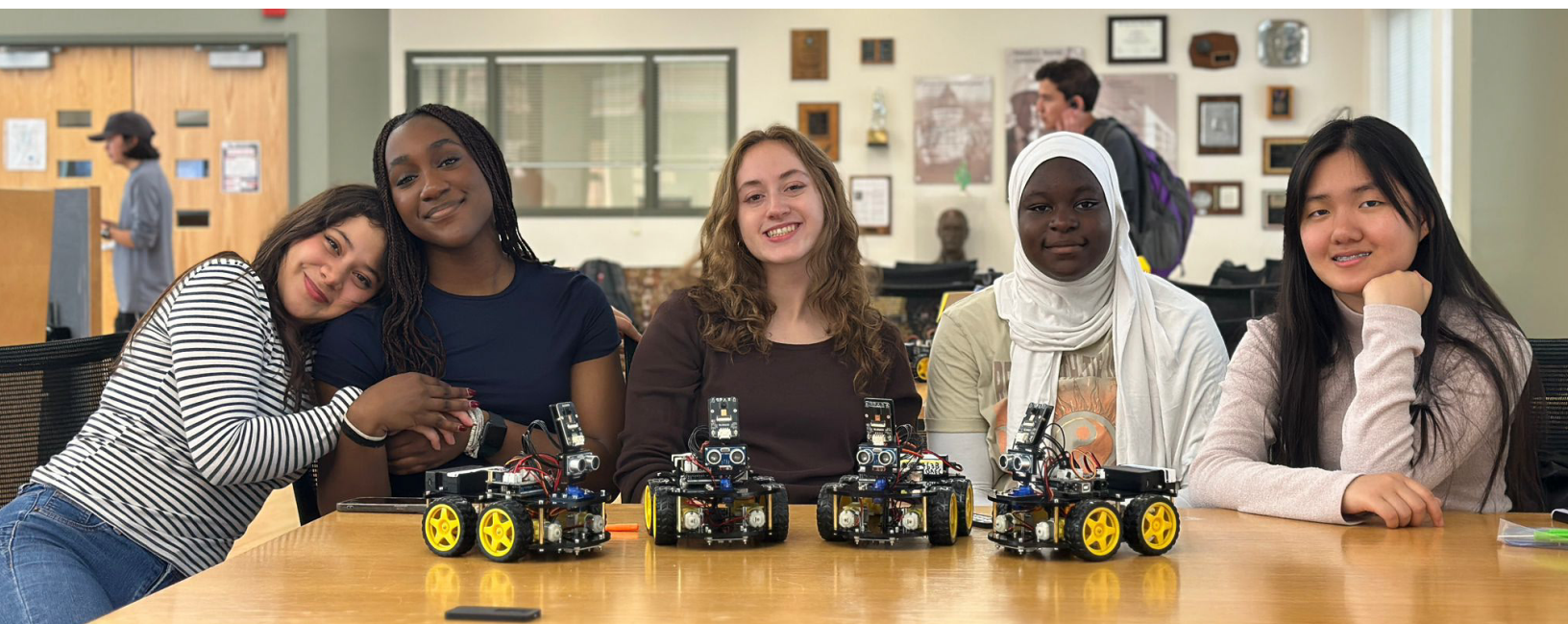
Grow and Manage Resources

Objectives

1. Grow the School of Engineering by 20% over the next five years by increasing the number of faculty, staff, and students, advancing New Mexico's technical workforce and economic development.

2. Optimize the use of existing resources by aligning transparent allocation of resources and incentives with School of Engineering goals and priorities.

3. Build a culture of philanthropy in the School of Engineering by continuing to develop our donor base.

4. Strengthen on-campus partnerships (e.g., with the Global Education Office, Athletics, interdisciplinary programs, other colleges and schools around campus).

18.2% increase in undergraduate enrollment since 2022

UNDERGRADUATE ENROLLMENT BY YEAR

1918   2150   2267

■ 2022   ■ 2023   ■ 2024

98%
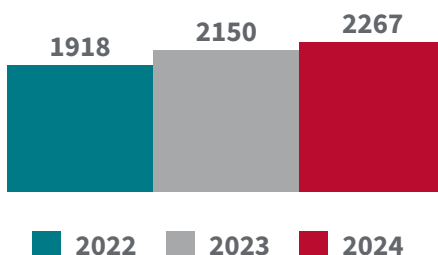
Progress towards increasing undergraduate enrollment

Our Time Campaign Accomplishments

- *Exceeded $35 million goal and reach goal of $50 million.*

- *Created the first endowed department in the history of UNM.*

- *Established five new faculty endowments across multiple departments.*

- *Established a strategic justice, equity and inclusion endowment.*

- *Addressed unmet financial need for all undergraduate students in Chemical and Biological Engineering and beyond.*

- *Grew support for graduate student success in multiple engineering departments.*

Our Progress

- **Increased undergraduate student enrollment by 5.44% in 2024.**

- **Created several positions** including: a director of integrative engineering and first-year experience, new advisor positions, a second recruiter, a second FRDO, additional development staff, an events planner, and institutional data support.

- **Appointed the school's first professor of practice.**

- **Created a physical space committee for transparent allocation of resources.**

- **SoE's first-ever space needs assessment** will take place in fiscal year 2026 as part of a UNM STEM effort.

- Collaborated with Institutional Services to **rebuild the distilled water system in the Centennial Engineering Center**, which failed due to pandemic-related servicing issues.

- **Established an endowment for the Summer Bridge Program** through the financial support of an outside donor, faculty, and Dean Riley.

- **Established and awarded inaugural Spirit of Philanthropy Award.**

- Added **two water bottle filling stations** in the Centennial Engineering Center.

- **Established** the **first permanent endowment for the Formula SAE Program.**

UNM Indigenous Peoples' Land and Territory Acknowledgment

Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico — Pueblo, Navajo, and Apache — since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples.

We gratefully recognize our history.

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