



John A. Edwardson Dean, College of Engineering Purdue University
West Lafayette, Indiana

THE SEARCH

Purdue University seeks a dynamic leader with a compelling vision for excellence to serve as the next Dean of the College of Engineering. This is a singular opportunity to lead the largest top-ranked college of engineering in the nation at a university with a track record of innovation and impact on a global scale. Purdue is seeking an energetic leader who will attract and support eminent and promising talent, inspire the College to build upon its success, and grow its diverse and inclusive community. With a new President beginning his term next year, a transformative development in Purdue's presence in Indianapolis, and the momentum from a decade of unprecedented success, this is an exciting time in the history of the University and the College. The next Dean will have the opportunity to pursue and lead truly game- changing initiatives that will impact the state, nation, and world.

Established in 1869, Purdue is Indiana's land-grant university, a comprehensive educational and research institution that is a member of the American Association of Universities (AAU). The West Lafayette Campus, located one hour north of Indianapolis and two hours south of downtown Chicago, has 10 academic colleges with an enrollment of more than 50,000 students. Purdue's strengths in technology (Polytechnic Institute), Agriculture, Science, Veterinary Medicine, Pharmacy, Liberal Arts, Management, Health and Human Sciences, and Education contribute to a robust research and educational environment and complement Engineering's world class programs. The College of Engineering has a proud tradition of pioneering research, leadership in educational innovation, and in creating programs for women and minorities in engineering that have become models for the rest of the country to emulate and follow. The Dean, reporting directly to the Provost, serves as the chief academic and administrative officer of the College of Engineering and will play a central role in leading the College to the next level of preeminence.

With more than 11,000 undergraduate students and 4,600 graduate students, the College is the largest top-ranked engineering college in America and the birthplace of the National Society of Black Engineers and the Engineering Education Initiative. The more than 400 faculty in the College of Engineering include

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20 members of the National Academy of Engineering, more than 150 Fellows in Engineering and Science Societies, nearly 100 distinguished and named professors, 10 recipients of the U.S. Presidential Early Career Award for Scientists and Engineers, and one recipient of the National Medal of Technology and Innovation. During the last campaign, Ever True, the College raised more than \$1 billion in philanthropic support. The College has an endowment of more than \$630 million and a research enterprise of more than \$300 million per year. Purdue is proud of its more than 105,000 engineering alumni, including Neil Armstrong and many other astronauts and numerous global corporate CEOs. The College is rated among the top in the nation for the recruitment of students by industry.

Purdue University has retained Isaacson, Miller, a national executive search firm, to assist in this search. All applications, inquiries, and nominations, which will remain confidential, should be directed to the search firm as indicated at the end of this document.

PURDUE UNIVERSITY

Purdue University was founded in 1869 as Indiana's land-grant institution and one of the nation's leading research institutions with a reputation for excellent and affordable education. The Purdue University system serves students through its flagship campus in West Lafayette and a network of regional campuses and technology centers across Indiana. The University has a total budget of approximately \$2 billion, student enrollment of more than 50,000 and 10 academic colleges with 2,700 faculty members, and 8,000 staff. Students hail from all 50 states and 130 countries and participate in about 1,000 student organizations.

Purdue University's colleges include: Agriculture; Education; Engineering; Liberal Arts; Management; Pharmacy; Health and Human Sciences; Science; the Polytechnic Institute; and Veterinary Medicine as well as the Honors College and the Libraries and School of Information Studies. Purdue offers 6,700 courses in 200 specializations. Purdue research expenditures totaled \$538 million in FY 22. The University Libraries system includes six subject-oriented libraries, the Hicks Undergraduate Library, and the Virginia Kelly Karnes Archives and Special Collections Research Center. The library system includes 3.3 million printed volumes and electronic books; over 200,000 electronic and print journals; and government documents and microforms in excess of 400,000.

In April 2017, Purdue reinforced its status as one of the world's most innovative universities by announcing it would acquire Kaplan University, a longtime leader in online adult education, and create a new, public institution—now <u>Purdue Global</u>—that provides education for adult learners that can be accessed online at any time. Purdue Global has enabled the University to educate more non-traditional students and offer a flexible and high-quality education. More than 10,000 students across 175 programs were awarded degrees through Purdue Global in 2021-22. Career outcomes rates for graduates significantly exceed the national average across all levels and student outcomes and satisfaction metrics also outperform the national average.

In April of 2021, Purdue's Board of Trustees voted to approve <u>Purdue's Next Moves</u>, representing five new strategic imperatives including Plant Sciences 2.0, National Security and Technology Initiative,

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Purdue Applied Research Institute (PARI), Transformative Education 2.0, and the Purdue Equity Task Force. The Next Moves will leverage distinct strengths and harness the power and the people of Purdue today to advance the University, community, and the world toward a safer, more sustainable and equitable place.

In August 2022, Purdue and Indiana University announced an MOU that will transform Indiana University- Purdue University Indianapolis into separate academic organizations. The re-alignment will result in a bigger and more visible Purdue in Indianapolis and allow the University to grow engineering, technology, and computer science enrollments while providing the state's largest city with a world-class high- technology research presence. The new structure will create a platform for collaboration in which each university's strengths will expand research activity and enhance funding opportunities for joint research initiatives, including the creation of a joint biosciences engineering institute, building off of ongoing collaboration between Purdue's Weldon School of Biomedical Engineering and other Purdue health- related disciplines and Indiana University's School of Medicine. In addition to its new urban campus, Purdue intends to open a branch of PARI on or near the current IUPUI. Overall, Purdue anticipates growing enrollment in Indianapolis by more than 1,000 students.

INSTITUTIONAL LEADERSHIP

Mitchell E. Daniels, Jr. is the 12th president of Purdue University and the former governor of Indiana. He was elected Indiana's 49th governor in 2004 in his first bid for any elected office, and then re-elected in 2008. At Purdue, Daniels has prioritized student affordability and reinvestment in the University's strengths. Breaking with a 36-year trend, Purdue has held tuition unchanged from 2012 through at least the 2023-24 academic year. In recognition of his leadership as both a governor and a university president, Daniels was named among the Top 50 World Leaders by Fortune Magazine in 2015 and was elected to the American Academy of Arts and Sciences in 2019. Daniels earned a bachelor's degree from Princeton's Woodrow Wilson School of Public and International Affairs and a law degree from Georgetown. He is the author of three books and a contributing columnist in the Washington Post.

Mung Chiang is the president-elect of Purdue University. From July 2017 to June 2022, he was the John A. Edwardson Dean of the College of Engineering. Since April 2021, he has been the executive vice president for strategic initiatives. As the engineering dean, he led the college to its first back-to-back top-4 graduate ranking in the U.S. while growing it to be the largest top-10 undergraduate engineering college in the country. Undergraduate admissions selectivity, yield rate, and graduation rate, as well as women and minority enrollment percentages, all achieved new records. Online program size more than quadrupled while the U.S. News and World Report (USNWR) ranking advanced to top-3. New degrees were launched, and professional master's enrollment more than quadrupled. Annual research awards surged more than 70% in five years, including the largest federal funding and the largest industry funding awards in college history and 12 national research centers headquartered at or co-led by Purdue. Patent applications increased by about 40%, and the College contributed to Purdue's Ever True Campaign in excess of \$1 billion. The "Pinnacle of Excellence at Scale" is further supported by 15 facility construction or renovation projects completed since 2017. As an EVP of the University, he worked with many colleagues to help launch the initiatives in national security technology and in semiconductor and

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life science manufacturing, in Discovery Park District's aerospace cluster and the Lab to Life platform, and in economic growth through federal, state, and private sector opportunities.

Previously, Chiang was the Arthur LeGrand Doty Professor of Electrical Engineering at Princeton University, where he was the inaugural Chairman of Princeton Entrepreneurship Council and Director of Keller Center for Innovation in Engineering Education. He helped launch the entrepreneurial programs at Princeton and was named a New Jersey CEO of the Year (2014). He received BS (Hons.) in electrical engineering and in mathematics, and MS, and PhD in electrical engineering, from Stanford University.

<u>Jay Akridge</u> serves as provost and executive vice president for academic affairs and diversity, with a faculty appointment as professor of agricultural economics. As Purdue's Chief Academic Officer, he is responsible for all academic programs; academic strategy and priorities; faculty-related matters; student academic/co-curricular activities; and diversity and inclusion initiatives. In this role, he is responsible for academics and diversity and leads 10 academic colleges, the Graduate School, Honors College, and Purdue Online. Dr. Akridge previously served as the Glenn W. Sample Dean of Agriculture. He received his master's degree and doctorate in agricultural economics from Purdue University and his bachelor's degree from Murray State University.

THE COLLEGE

Students in the College of Engineering choose from curricula in 14 major schools/divisions. Since the first engineering degree awarded in 1878, the development of Purdue's College of Engineering has reflected the dynamic growth of the profession of engineering and its increasing specializations. Purdue has taken a leadership role in growing the STEM talent pool, enhancing the state's and nation's capacity for innovation, economic growth and solutions to global grand challenges. Over the past 15 years, undergraduate enrollment has grown by more than 70%, MS enrollment by more than 150%, and PhD enrollment by more than 60%. The Engineering faculty and staff have both grown by more than 30%, and extramural research funding by 150%. For more than a quarter century, Purdue University has had the largest or second largest undergraduate engineering enrollment in the country, graduating 6 to 7 percent of the nation's finest engineers. All told, the College consists of more than 11,000 undergraduate students, 5,000 graduate students and some 4,000 online students.

The College was ranked No. 4 in the nation by USNWR for the second consecutive year and is the largest engineering college ever to be ranked among the nation's top 5. It has five undergraduate and eight graduate programs ranked in the USNWR top 10. Its online master's program is ranked No. 3 in the nation. Some 74 percent of undergraduates participate in experiential learning and they enjoy a 95 percent placement rate within six months of graduation. For a full picture of academic units and programs, please see more here: Purdue College of Engineering.

Purdue Engineering is home to many engineering education landmarks, including the nation's first Women in Engineering Program, the founding site of the National Society of Black Engineers, Engineering Projects in Community Service, and the nation's first Department of Engineering Education. Purdue has been producing engineering graduates for 120 years on a campus that was the college home

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to both the first and the most recent humans to walk on the moon.

The College values diverse perspectives and sees diversity as a key to achieving excellence. Enrollments for women and URM students increased by 82% and 112% respectively from 2010 to 2020. The College was recognized by ASEE's Diversity Recognition Program with the highest level (bronze) status. Purdue Engineering has a long history of commitment to diversity as evidenced by their Minority Engineering program established in 1974 with the goal of attracting students from historically underrepresented groups. Diversity in the faculty is equally prioritized, and the College has continued to recruit and retain ever-increasing numbers of faculty of color. For more information, please see <u>Diversity in Engineering</u>.

The College engages with industry in curriculum innovation, workforce development, research, and entrepreneurship and is poised to continue its ascent under the next dean as a central fixture in the Midwest tech corridor. A global powerhouse in the development of semiconductors and other emerging technologies, such as microelectronics, aerospace technology, energetic materials, and hypersonics research, Purdue is a compelling partner for national defense projects. It's also a key player in the development of devices in support of life and health sciences, partnering with companies and the state on research and innovations to diagnose, treat, and manage illness. It has produced more than 830 patents and more startups than any public engineering college. It hosts the largest student-run job fair in the nation and has relationships with more than 2,500 companies.

Facilities

Since 2010, the University and College have invested \$398 million in new engineering buildings and renovation. A major complex to be opened in the Fall of 2022 – the 255,000 sq. ft. <u>Dudley Hall and Lambertus Hall</u>, is a state-of-the-art learning and research facility shared with the <u>Purdue Polytechnic Institute</u>. Traditional academic buildings are complemented by specialized engineering research facilities, including the Bowen Laboratory for Large-Scale Civil Engineering Research; Herrick Laboratories, which focuses on topics such as acoustics, noise, and vibration testing and houses the Center for High Performance Buildings; the Indiana Manufacturing Institute, which serves as Purdue's headquarters for the Advanced Composites National Manufacturing Network; Zucrow Laboratories, which supports research in large-scale turbomachinery, gas turbine combustors, wind tunnels, and various propulsion applications; and the Birck Nanotechnology Center, which includes the Scifres Nanofabrication Laboratory, the nation's second-largest academic clean room for semiconductor research. These and other facilities are crucial to Purdue's involvement in significant programs and infrastructure to increase applied research, cislunar operations, and semiconductor fabrication hubs and workforce in west-central Indiana.

Purdue's Discovery Park District is a master plan community where forward-thinking companies, families, and individuals come to live, work, learn, play and grow in a dynamic, interactive community focused on innovation. Established in 2001, the 400-acre district is the launch pad for nearly \$500 million in interdisciplinary research, 100 patents, and 50 startups each year. It serves as a place for businesses of all sizes to access Purdue's global talent and advanced R&D facilities to solve pressing problems. The District Core surrounds the <u>Discovery Park</u> research complex, a 40-acre complex of

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facilities on the southwest edge of Purdue's West Lafayette campus where interdisciplinary projects are connected throughout Purdue, Purdue Research Park, and the world. In addition to the core research complex, the District offers the widest mix of uses, including: Innovation Spaces (co-working, office, lab, and maker); retail options; multiple housing options for employee attraction and retention; and abundant parking. Rolls-Royce, Saab, and Schweitzer Engineering Laboratories are the first of a growing set of companies located in the Discovery Park District.

In July 2022, Skywater Technology announced plans to open a \$1.8 billion <u>state-of-the-art semiconductor manufacturing facility</u> in the Discovery Park District. This development is a continuation of a strategy for Purdue to address the global semiconductor shortage, following the launch in May of a comprehensive set of interdisciplinary degrees and credentials in semiconductors and electronics and an announcement in June of Purdue's partnership with <u>MediaTek Inc.</u>, a leading global fabless chipmaker, to open the company's first semiconductor chip design center in the Midwest in the Discovery Park District.

THE ROLE OF DEAN

Reporting directly to the Provost and overseeing a budget of \$410 million, the Dean works closely with the College's associate and assistant deans, school and department leaders, faculty, staff, and students, to ensure the College's teaching and research activities operate at the highest levels of excellence.

An important responsibility for the Dean is to secure financial resources both within and outside the University to support the many programs, faculty, and facility needs. The Dean actively represents the College to a variety of constituencies internal and external to the University, including working collaboratively with local, state, and national educational leaders to advocate for equitable and high-quality education for all children and youth in Indiana and across the country.

The next Dean will position the College as a national and global leader in engineering excellence. This will be evidenced in continued upward momentum in the quality of the student educational experience and rankings, expanded research endeavors and discoveries, as well as partnerships with public and private entities that will offer opportunities for students and the research enterprise.

LEADERSHIP OPPORTUNITIES AND CHALLENGES

The next Dean of the College of Engineering will be charged with addressing the following opportunities and challenges:

Grow Research

With an annual research enterprise of more than \$300 million and 15 federally funded research centers of more than \$10 million, the College is a leader in federal and industry research and a major research engine for the University. The Dean must work proactively with school and department leaders, as well as Deans of other Purdue colleges, to strategically pursue opportunities for large grants and develop

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new niche areas of strength while building upon existing areas of research excellence. The Dean will have the judgment and foresight to make opportunistic hires and to develop resources and advocate for additional research infrastructure and renovations of space. The National Security and Technology Initiative, one of the pillars of Purdue's Next Moves, will focus efforts for Purdue to lead national centers of excellence and deliver new, one-of-a-kind research and test facilities to address challenges in hypersonic and space vehicles, energetic materials and systems, cybersecurity, and secure microelectronics. The College will be the leading player in this important, University-wide initiative.

Continue a relentless trajectory of excellence

While Purdue engineering has a long history of educating talented students and producing world-class research and scholarship, it has reached new heights over the past decade. The College is in an increasingly competitive environment, vying with the best universities in the world for students, faculty, and research support. The next Dean must have the foresight and confidence to take educated risks that will lead the College to open doors to new and emerging areas that others follow. The Dean must be a tireless champion for the College who aggressively pursues opportunities for innovative programs, partnerships, and research initiatives. The College's size and excellence will give the Dean a national and international platform that they must leverage fully to build upon the success and maximize the impact of the College.

Enhance quality and impact of academic programs

The next Dean will build on the College's legacy of exceptional teaching and experiential learning. As home to the nation's first Department of Engineering Education, its focus on educational innovation is well established. Nearly 92 percent of first-year students are retained, supported by an array of programs and initiatives to support their success. The College's breadth gives students a variety of options to find their calling and more than 70 percent of graduating Boilermaker engineers gain direct experience <u>outside of a traditional academic setting</u> through study and work abroad, industry co-ops and internships, research, community service and entrepreneurship projects. The College is already among the largest in the country and has undergone a period of significant expansion. The next Dean will be asked to look beyond traditional growth and to find ways to expand offerings to working professionals, online education, and innovative new MS and PhD offerings to attract a more diverse student pool and grow the state's pipeline of students who are prepared to be Purdue engineers.

Elevate industry relationships

The next Dean will look to build on industry relationships through research, internships, educational programs, and placements. Local, domestic and global partnerships are necessary and should be pursued aggressively in an effort to bolster opportunities for students and in the research portfolio. The initiative in Indianapolis with the strengthening of Purdue's presence there as well as the continued engagement of industry in Discovery Park and the development of PARI will provide exceptional opportunities to build industry partnerships vital to the state, region, and nation. The University and the state are aligned as partners in efforts to transform Indiana's economy and the College of Engineering

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will be critical to those efforts.

Encourage, promote, and enrich student and faculty diversity and foster an environment of inclusion and belonging

Inclusion is one of Purdue's six pillars and the University's <u>Statement of Values</u> – endorsed by the University Senate and a specific focus of Purdue's Board of Trustees through the <u>Equity Task Force</u> – underscores the importance of respect, diversity, and inclusion to the University culture. But much work remains to be done across the University and in the College. The next Dean must be an active and engaged leader around issues of diversity, inclusion and belonging who recognizes that continued progress in this area is critical to continuing its tremendous success. The next Dean will engage with the College community to build a climate of inclusion and belonging that supports the success of all, and especially students, staff, and faculty from groups that have been historically underrepresented. The Dean will seek ways to ensure that search and recruitment processes bring the very best talent to the College, making deliberate efforts to include groups that can be excluded from such processes. A demonstrated track record of building a diverse organization and fostering environments that are inclusive, equitable, and safe for all, will be essential for the successful candidate.

Set a strategic and ambitious vision for the future of engineering at Purdue

The College's size and breadth afford it opportunities to pursue excellence across an almost limitless range of areas. Some of the College's schools are larger than entire colleges of engineering. While this scale is an asset, it creates complexities in strategy and budgeting that will call on the Dean not to be a micromanager, but to build a strong team, listen carefully, and effectively communicate a cohesive vision for the College. The next Dean will be a strategic vision setter, inspirational leader, and external champion who fosters a culture of innovation, encourages collaboration, and enables the success of others to make the College greater than the sum of its parts.

Effectively develop resources for the CollegeIn line with its land-grant mission, Purdue continually works to make the institution accessible and affordable. As a result, tuition has been frozen for more than a decade. This makes the development of resources through innovative programs, research success, and fundraising of particular importance. The College raised more than \$1 billion in the Ever True campaign and will be called upon to contribute even more in the next campaign. With the support of more than 100,000 living alumni and strong relationships with industry, the next Dean will be a relationship builder and aggressive fundraiser, effectively communicating the great work the College does and the potential impact of donor support.

Essential Qualifications:

- Earned doctoral degree or appropriate terminal degree
- Creative and visionary leader with proven ability to bring a complex organization together around ambitious goals
- Preeminent scholar with a rich record of academic achievement and management/supervision of academic activities

- Distinguished record of leadership and administrative accomplishments, including the recruiting and retention of an excellent and diverse faculty, staff, and students
- Demonstrated commitment to the pinnacle of academic excellence at both the undergraduate and graduate levels
- Commitment to the distinct mission of a public, land-grant university
- An entrepreneurial mindset, and a history of encouraging entrepreneurial action amongst faculty, staff, and students
- Understanding and appreciation of the broad range of schools and programs in Engineering
- Demonstrated ability to attract resources through sponsored programs and private donations
- Ability to develop, articulate, and communicate a clear vision for the future of engineering research, education, and engagement
- Ability to engage and lead faculty, foster interdisciplinary activities, and develop large-scale research programs both within the College of Engineering and between Engineering and other colleges in the University
- Demonstrated ability to collaborate and build and support high impact partnerships with other disciplines across an academic/other enterprise
- Commitment to leveraging Purdue's engineering research, education, and entrepreneurship for regional economic growth and development
- Evidence of ability to establish high-impact collaborations with industry and private sector institutions
- Demonstrated commitment to diversity in the broadest sense of the term
- Demonstrated commitment to creating a culture of belonging and inclusion

Desired Qualifications:

Recognition for significant accomplishments such as election to the National Academy of Engineering Experience related to the development and transfer of technology to create economic growth Experience in developing and executing compelling visions for excellence and impact at the highest level and commitment for diversity

To Apply

Purdue University has retained Isaacson, Miller, a national executive search firm, to assist in this search. The search will remain open until a hire is made, but for fullest consideration, applications should be submitted by November 1. All inquiries, applications and nominations should be submitted electronically and in confidence to http://www.imsearch.com/8746.

A background check is required for employment in this position.

Candidates must have the ability to work in the US without immigration sponsorship from Purdue University.

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Purdue University and the College of Engineering are committed to free and open inquiry in all matters. Candidates are encouraged to address in their cover letter how they are prepared to contribute to a climate that values free inquiry and academic freedom.

Greg Esposito, Partner

Melissa DePretto-Behan, Senior Associate
Isaacson, Miller https://www.imsearch.com/search-detail/8746

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities and veterans are encouraged to apply.