



Stony Brook University

Stony Brook University College of Engineering & Applied Science **Department Chair and Professor, Mechanical Engineering**

The [College of Engineering & Applied Science](#) (CEAS) at Stony Brook University seeks a highly accomplished scholar and strategic leader to be the Chair of the Department of Mechanical Engineering. Serving a renewable five-year term, the Chair will be appointed as a full-time tenured faculty member in Mechanical Engineering and, while remaining active in research, will provide sustained strategic leadership of the department.

[Mechanical Engineering](#) (ME) at Stony Brook is experiencing an exciting period of growth in both undergraduate and graduate education, currently hosting approximately 450 undergraduate and 100 graduate students, with 22 faculty members. CEAS is similarly going through a period of reinvention, with new emphasis on cross-disciplinary research, innovation, and impact. The Chair of Mechanical Engineering will join a leadership team that is, in the words of CEAS dean Andrew Singer, dedicated to “providing a world-class education in engineering and applied sciences that fosters in our students an endless curiosity and fascination, equipped with the technical knowledge to make a difference.”

[Stony Brook University](#) is an AAU-member research institution with a remarkable history of social impact. The University pursues a five-part [mission](#):

- to provide comprehensive undergraduate, graduate, and professional education of the highest quality
- to carry out research and intellectual endeavors of the highest international standards that advance knowledge and have immediate or long-range practical significance
- to provide leadership for economic growth, technology, and culture for neighboring communities and the wider geographic region
- to provide state-of-the-art innovative health care, while serving as a resource to a regional healthcare network and to the traditionally underserved
- to fulfill these objectives while celebrating diversity and positioning the University in the global community

Stony Brook consistently ranks #1 among public research universities in increasing the socio-economic mobility of its students.

The Department of Mechanical Engineering

Mechanical [Engineering](#) (ME) is one of nine departments in CEAS. The department consists of four Full, eleven Associate and four Assistant professors, three Instructors, and five Staff. The faculty is active in cutting-edge, cross-disciplinary research, with funding from federal and state sponsors

including NSF, DoD, DoE, NIH, NASA, NYSEDA, Brookhaven National Laboratory and private industry.

ME faculty have developed highly respected research [programs](#) in a number of areas:

- Advanced Combustion and Energy Systems
- Advanced Composites, Metamaterials, and Computational Mechanics
- Advanced Sensing and Actuation for Smart and Soft Structures
- AI-driven Mechanism Design and Design Optimization
- Fluid Mechanics, Microfluidics, Interfacial fluid mechanics, and Particulates in Multiphase systems
- Heat Transfer and Advanced Energy Systems
- Laser Processing, Optical Diagnostics and Non-linear Optical Devices
- Robotics for Healthcare, Multimodal Robotics and Biomimetic Design

The key to the Department's research achievements is developing successful relationships with affiliated institutions and centers in the belief that sharing resources, research interests, and ideas contributes to exciting technological advances. The department is central to a number of well-organized research and education enterprises that in many cases engage faculty and students from other CEAS departments and other parts of Stony Brook. These include:

- Advanced Energy Research & Technology Center (AERTC)
- Center for Biotechnology (CfB)
- Center of Excellence in Wireless Internet and Information Technology (CEWIT)
- Institute for Advanced Computational Science (IACS)
- Institute of Energy: Sustainability, Environment and Equity (I:SEE)
- Strategic Program for Industrial Resurgence (SPIR)
- SUNY Korea

Department Chair, Mechanical Engineering

Reporting to the Dean of CEAS, the Department Chair will be responsible for providing strategic direction for the growth and reputation of the department and of electrical and computer engineering in its engagement with other fields in engineering and applied science as well with other fields where ME can contribute to and benefit from synergy. Such leadership includes engaging with industry, private foundations, and alumni to advance the department's success and reputation.

The Chair will lead the department by engaging the ME community in conversations about the department's mission, vision, and values in order to establish a set of meaningful shared goals and a framework for collective success. The Chair oversees administrative, budgetary, and promotional decisions within the department and has the authority to allocate resources and to launch strategic initiatives in the context of the university's new all-funds, performance-based [budget model](#).

CEAS dean Andrew Singer is committed to providing the support that will enable ME to substantially advance its mission. The Dean expects to partner closely with the Chair in advancing the department, including substantial engagement in fundraising activities, which will be additionally supported by University expertise and resources.

The Chair will work with colleagues in and beyond the department to enhance its resources, increase its stature, and elevate its reputation. The means to these ends, the measures of success, and the prioritization of activities designed to achieve them are matters the Chair will define in collaboration with the faculty and the Dean. Each of the department's foci, like those of CEAS more broadly, provides opportunities for strategic and operational impact and accomplishment.

Responsibilities

The Department Chair of Mechanical Engineering will

- Lead the department by developing and advancing a compelling vision for its excellence in research, education, service, and impact
- Work with CEAS and partners, execute and align the department strategic plan to that of the college and campus strategic plans
- Sustain and expand the scholarly excellence of the department, and endeavor to be a leading program in the country
- Foster, advocate, and promote cutting-edge, innovative undergraduate and graduate curricula as well as multidisciplinary research collaborations through effective leadership and management; foster a positive, engaging environment for undergraduate program excellence
- Demonstrate a commitment to diversity, equity, inclusion and belonging, and work with faculty and staff to promote and create initiatives in these important principles throughout the department
- Serve as an engaged, institutionally focused member of the dean's leadership team, contributing to the overall developing of CEAS resources, direction, and success
- Promote an engaging environment for tenure-system and non-tenure-system faculty members, grounded on effective mentoring and academic and professional development
- Leverage both existing and new connections with industry to better position the department as a leader in cutting-edge research and industry partnerships
- Create and maintain a supportive environment for faculty to pursue large-scale interdisciplinary center funding with major impact
- Advance a culture of active alumni engagement with the department that celebrates its graduates as agents of its impact to the world and as the stewards of its long-term excellence
- Support the department's development efforts and establish strategic engagement and partnerships with foundations and private institutions that share the department's passion and vision for overall excellence
- Appoint undergraduate and graduate program directors, other administrators, and committee chairs and members as appropriate
- Oversee the equitable execution of the department's educational programs with the faculty, and schedule courses and assign instructors to these courses in consultation with program directors, the faculty, and the dean's office
- Set and communicate expectations for the scholarly and creative activity of faculty and evaluate faculty annually
- Provide mentoring and mentoring structures for the department's faculty
- Catalyze the bridging of both scholarly and educational programs across departments and other Stony Brook schools/colleges

- Plan and administer the department's budget in consultation with the dean's office
- Design faculty recruitment efforts with department and center/institute colleagues and contribute to their success
- Seek and facilitate external giving and resource development for the department

Strategic Opportunities

- Establish and support the advancement of a culture of research productivity, with strategically conceived department-level resources for proposal development and award management, while also engaging across CEAS and Stony Brook on interdisciplinary proposals and larger-scale program grants
- Establish norms across the faculty for responsibilities with regard to research, teaching, and service
- Standardize and establish transparency around course releases and other productivity-based arrangements
- Lead the recruitment, development, and retention of a high-performing, high-morale, ambitious and innovative faculty and staff who thrive in an environment of inclusion and shared excellence

Qualifications and Appointment Terms

Qualified candidates will have the credentials necessary for appointment as a tenured full professor at Stony Brook University. These credentials entail a dossier that records a distinguished record of scholarship and teaching, a passionate commitment to research, discovery, and translation, and leadership in their field(s) and a national reputation for research and education. Qualified candidates will also have demonstrated an interest in and success at academic administration. And they will have a record of impactful efforts to enhance diversity, equity, and inclusion among faculty, staff, and undergraduate and graduate students.

The successful candidate will have demonstrated leadership abilities, administrative aptitude, and experience in fostering collaboration and building consensus amongst colleagues. Agility, relationship skills, the readiness to take calculated risks on the basis of analysis, consultation, and ambition for the department are attributes a Chair will draw on in leading Stony Brook Mechanical Engineering to new levels of distinction.

The Chair will be a proven, entrepreneurial leader who can inspire faculty, staff, and students in a shared governance environment. They will have the ability collaboratively to develop a compelling vision to establish ME as a hub for research and as a site of innovation, teaching, and translation. They will have strong skills for mentoring junior faculty and will promote the interests of the entire department. Fundraising experience is preferred.

Qualifications

Ph.D. or equivalent in Mechanical Engineering or closely related field. Ten (10) years of teaching and research experience. A proven record of scholarship and the ability to support a vibrant research program along with an outstanding record of professional achievement. Excellent leadership and management skills required to lead a world-class research and education program. Demonstrated

academic leadership experience and a commitment to enhancing diversity, equity and inclusion among faculty, undergraduate, and graduate students. A record of successful administrative experience managing personnel, budgets, and department or center/institute or school/college academic operations.

Appointment terms

The Chair will serve a renewable five-year term subject to an appropriately rigorous periodic review. Elements of the appointment such as underlying faculty salary, teaching load, outside engagements, and summer compensation are negotiable. The Chair will have an underlying faculty position as a tenured full professor. 9-month faculty salary is commensurate with experience and rank; the department chair also receives an administrative supplement and can negotiate other elements of their total compensation package including research support.

Stony Brook University

Stony Brook University is one of two flagships of the State University of New York (SUNY) system. It is a leading public university, an internationally recognized research and medical institution, and a member of the prestigious Association of American Universities (AAU). It is known as one of the nation's premier centers for academic excellence and is a leader in generating social mobility with a proud history of undergraduate student success. Stony Brook is located approximately 60 miles east of Manhattan on Long Island's beautiful North Shore.

Situated on 1,454 wooded acres, the campus encompasses 12 schools and colleges; a Research and Development Park; a host of centers and institutes that range in focus from education, arts, and culture to STEM, business, and medicine; and world-class athletics facilities, including a 12,300-seat stadium and a 4,000-seat arena. The University also includes Stony Brook Medicine, Long Island's premier academic health system encompassing five health sciences schools, four hospitals, 200 community-based healthcare settings, and a growing number of clinical affiliations. Stony Brook University has a teaching and research campus in Southampton, NY, which is home to graduate arts programs, health sciences professional programs, and the Marine Sciences Center; SUNY Korea is part of the Incheon Global Campus in South Korea. Since 1998, Stony Brook, in partnership with Battelle, has managed the [Brookhaven National Laboratory](#), one of 17 Department of Energy National Labs, with many faculty holding joint appointments.

The University enrolled 25,865 students in the fall of 2023 (17,549 undergraduate students and 8,316 graduate students) and supports almost 300 postdoctoral scholars. It offers more than 200 majors, minors, and combined degree programs. Students come to Stony Brook from nearly all 50 U.S. States and over 100 countries. About one-third of Stony Brook's undergraduates are first-generation students. Stony Brook is a diverse community, and the 2023 entering-class profile was 49% male and 51% female. Its racially and ethnically diverse student body is 27.9% Asian, 5.8% African American, 13.3% Hispanic/Latinx, 13.3% nonresident alien, 30.4% Caucasian, 2.7% two or more races, and 6.5% not indicated/unknown. International students constitute 13% of Stony Brook's total enrollment. The University enjoys a strong international presence, maintaining affiliation agreements with about 100 universities in Africa, Asia, Europe, Latin America, and Oceania.

A core value of Stony Brook is its commitment to diversity, equity, inclusion, and accessibility. The University has recently been recognized for its leading role in providing opportunities for social mobility and economic growth for its students. These outcomes are singled out in a recent study by the Stanford Institute for Economic Policy Research, which concluded that Stony Brook offers a proven path toward upward advancement for students from low-income households, far ahead of many of its better-funded peers, both public and private. The University outperforms the national graduation rates of four-year institutions regardless of race or ethnicity. Stony Brook graduates have less debt than the national average of college graduates, and 95 percent of recent graduates are either employed or continuing their education. In 2024, U.S. News and World Report ranked Stony Brook as a top-30 public institution and the #1 public university in New York State.

As Long Island's largest single-site employer, the University has over 15,000 full and part-time employees, including more than 2,700 faculty. Stony Brook's expected 2023-24 operating budget is nearly \$4 billion, with monies generated from a variety of sources including academic and research funds, hospital revenue, tuition, state support, and philanthropy. Thanks in large measure to the transformative 2023 gift of \$500M in unrestricted endowment funds by the [Simons Foundation](#) – the largest-ever such gift to any US university – Stony Brook's endowment has grown to approximately \$750 million and will grow towards \$1 billion when matching gifts triggered by the Simons donation arrive. The growing endowment will propel the University's efforts in education, research, and service. More detailed information about the University's budget and fiscal plans are available in its [Achieving Financial Sustainability Plan](#).

Research at Stony Brook

Stony Brook faculty are known for their outstanding research, scholarship, and creative activity. Faculty members are recipients of many national and international awards for their research, creative activity, and teaching. Notable accomplishments and recognitions earned by Stony Brook faculty and associated faculty over the years include:

- 27 members of the National Academy of Science
- Six members of the National Academy of Engineering
- Six members of the National Academy of Medicine
- 14 members of the National Academy of Inventors
- 29 members of the American Academy of Arts and Sciences
- Six Fellows of the Royal Society
- The 2003 Nobel Prize in Medicine for developing the first MRI images
- 1957 Nobel Laureate in Physics and Stony Brook University faculty member C.N. Yang
- Inaugural President's Distinguished Endowed Chair in Physics, 2017 Nobel Laureate Barry Barish

With more than 2,500 faculty, staff, graduate students, and postdoctoral trainees engaged in research and over 2000 sponsored awards, Stony Brook's Research and Development (R&D) expenditures topped \$244 million, including \$201 million of Federal sponsored R&D expenditures, as reported in the University's 2023-2024 [NSF HERD](#) data. Stony Brook's annual research expenditures have grown by 50% since 2014.

Stony Brook is home to numerous [research centers and institutes](#), including the Center for Frontiers in Nuclear Science, the C.N. Yang Institute for Theoretical Physics, the Turkana Basin Institute, the Cancer Center, the Centers for Molecular Medicine, the Laufer Center, the Institute for Chemical Biology and Drug Discovery, the Institute for Discovery and Innovation in Medical Engineering, the Institute for Advanced Computational Science, and the Long Island Network for Clinical and Translational Science. In addition, there are numerous large federally funded centers, including two DOE-funded Energy Frontiers Research Centers (EFRC), the CDC/NIOSH- funded World Trade Center Wellness Program, and as lead institution for the NSF-funded large facilities grant The US Collaboration for the ATLAS Experiment at the Large Hadron Collider. Among Stony Brook faculty are approximately 50 joint appointments with Brookhaven National Laboratory, where many faculty and students are involved in research activities and access unique user facilities.

Stony Brook's role as co-manager of Brookhaven National Laboratory enables faculty and grad students to take advantage of BNL's significant research infrastructure and scale. Relationships with Cold Spring Harbor Laboratory enable University researchers to collaborate with CSHL's research staff, for instance in the Genetics Graduate Program and the Neuro AI initiative, and to access CSHL's unique user facilities.

The Stony Brook Research and Development Park, located on 246 acres adjacent to the main campus, has been designed as a community of innovators who build solutions to society's most pressing problems, leveraging Stony Brook's research strengths in three convergent areas: energy, information technology, and biomedical technology. The R&D Park is home to two NY State-funded Centers of Excellence in Wireless and Information Technology (CEWIT) and Advanced Energy Research and Technology Center (AERTC). State-of-the-art facilities provide resources to researchers, entrepreneurs, and users from academic, corporate, and government sectors. The R&D Park and other research facilities across the campus continue to attract and retain preeminent faculty and outstanding students, and to produce cutting-edge research and creative activities that will secure Stony Brook's place among the very best research universities.

Between 2021-2022, Stony Brook launched a "Tiger Team" initiative to identify priority areas to focus in developing larger-scale research programs as well as services and infrastructure necessary to develop the research enterprise transformatively. This initiative, described [here](#), brought new clarity to the investments Stony Brook can make in research in order to fully leverage its impressive disciplinary breadth.

Stony Brook's Presidential Innovation and Excellence ([PIE](#)) Fund launched in 2021 with an initial \$75 million investment. The fund exists to underwrite potentially transformative initiatives whether in or across disciplines or in infrastructure and core facilities. Since its inception, PIE has contributed to the development of Stony Brook's winning proposal to develop Governors Island as a hub for climate research, as well as the Center for Distributed Quantum Processing, and the Center for Healthy Aging. Additionally, a \$100 million appropriation from New York State will enable Stony Brook to build state-of-the-art research facilities. Leveraged by such funding, the University continues to develop its campus, including the new [Institute for Engineering-Driven Medicine](#). As noted, the PIE program will provide the first five years of AI3 funding.

Please see the [Research and Metrics](#) website for additional data on Stony Brook research. And to learn more about the community and the benefits of working at Stony Brook University, explore [here](#).

To Apply

Stony Brook University is committed to creating and maintaining a workplace and educational environment that is safe, accessible, and free of all forms of discrimination, sexual misconduct or research misconduct, among other infractions. In support of this commitment, certain candidates for employment will be required to disclose such employment-related misconduct findings and pending investigations or proceedings, and final candidates for certain faculty and staff positions will authorize their current and previous employer(s) from the last seven (7) years to disclose such information to the University. Employment is contingent on your full and complete disclosure on these matters. In the event that you fail to disclose any such matter or in the event of an unsatisfactory outcome of the disclosure and review process, an offer of employment may be revoked at SBU's sole discretion. If SBU becomes aware of a failure to disclose or misrepresentation of any such matter after your employment commences, you may be subject to discipline, up to and including termination.

The selected candidate must successfully clear a background investigation.

In accordance with the Title II Crime Awareness and Security Act, a copy of Stony Brook's crime statistics is available upon request by calling (631) 632- 6350. It can also be viewed online at the University Police website at <http://www.stonybrook.edu/police>.

Stony Brook University has retained Opus Partners (opuspartners.net) to support this recruitment. Craig Smith, Senior Partner, and Carli Swartz, Senior Associate are leading the search. Inquiries, applications, and nominations should be sent to carli.swartz@opuspartners.net. The search process will unfold with the greatest possible attention to candidate confidentiality. Required application materials include a CV and cover letter. Finalists in the search process will provide at least three (3) contact references who can speak to their leadership and administrative abilities, their management record, and their integrity. Stony Brook University values diversity, equity, and inclusion and will seek a leader who is committed to promoting these values. Candidates can read more about Stony Brook's efforts [here](#). We encourage candidates to address in their cover letters how they have promoted these values in their career and/or how they would plan to do so in this role.

This national search will continue until the best possible appointment can be made. For full consideration, candidates should complete their dossiers by December 1, 2024. Review of applications will begin shortly thereafter.