Opus Partners

Stony Brook University College of Engineering and Applied Sciences

Stony Brook University College of Engineering & Applied Sciences
Chair, Department of Materials Science & Chemical Engineering

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

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 College of Engineering & Applied Sciences

CEAS is one of 12 schools and colleges that comprise Stony Brook University. Organized in nine departments and housing (in whole or partly) some 16 research centers and institutes, CEAS is experiencing record enrollments and increased recognition. At the start of the Fall 2025 semester, the college has almost 4,100 undergraduate students and over 1,700 graduate students. Some 200 tenure-line faculty as well as lecturers, research faculty, and dedicated administrative staff advance the college's teaching, research, service, and translation missions. In FY 2024-2025, CEAS saw total research expenditures reach a level of $57 M, a record; some $45 M of this came from federal sources.

Immediately upon becoming dean in July 2023, CEAS dean Andrew Singer began a strategic planning process that culminated a year later in *Engineering Our Moment*, a framework that will guide the college's development over the next decade in pursuit of its mission, "to serve and empower society through education in engineering and applied sciences, advances in technology, and creation of transformative knowledge."

Engineering Our Moment establishes five core values for the college – Innovation, Excellence, Collaboration, Inclusive Community, and Empowerment – and four priorities:

- Inspire learning to shape and engage our society's professionals
- Enable faculty to innovate and explore to their highest potential
- Be a valued and trusted partner
- Tell the world about us

The Department of Materials Science & Engineering

Since its inception, the MSCE department has had a strong research component, with a recent emphasis on advanced materials, materials and processes for energy generation and storage, and sustainability. The strength of our department lies in our exceptional faculty and dedicated students. The department currently houses 21 tenure-line faculty, four research professors, and a number of adjunct and affiliate faculty, in addition to 2 technical and 4 administrative staff members. Current PhD graduate-student enrollment is 121, while approximately 250+ are enrolled in the undergraduate programs.

The department has been successful in obtaining external funding for research and currently has the highest per capita faculty funding within the University. It supports a wide range of research programs, with strengths in energy, catalysis and hard materials, computational materials science, microelectronics, nuclear materials, polymer and soft materials, sustainable engineering, and thermal spray.

The department is home to many research centers including an EFRC on Energy Storage Technologies, the Center for Mesoscale Transport Properties, the Garcia Polymer Center, the Center for Thermal Spray Technologies, the Institute of Gas Innovation and Technology and the Onsemi Research Center for Wide Bandgap Materials. These centers offer a unique and rich environment for interdisciplinary graduate research and education.

The proximity to Brookhaven National Laboratory (BNL) and its advanced national facilities has been a major benefit to both faculty and students within the department. Three faculty members hold joint appointments at BNL, while Brookhaven scientists participate in research and teaching within the department. Specifically, relevant BNL facilities, housing the National Synchrotron Light Source II and the Center for Functional Nanomaterials, include particle accelerators for carrying out ion beam surface modification experiments and highly sophisticated surface analysis probes in addition to state-of-the-art nanoscale characterization facilities. For the incoming Chair, this proximity offers a distinctive platform to develop and lead strategic partnerships with BNL, such as advancing collaborative research programs (especially in the context of advanced characterization techniques), enhancing faculty engagement, and fostering new educational and workforce-development initiatives.

MSCE offers graduate programs in materials science and chemical engineering and undergraduate programs engineering science and chemical and molecular engineering. The Department has a National Medal of Technology recipient, a member of the National Academy of Engineers, a Jefferson Fellow, four NSF-CAREER awardees, and DOE Early Career awardee. Three of its faculty are Distinguished Professors, the highest and most prestigious rank offered by SUNY.

In the 2024-2025 academic year, the department received a record high of $13.4 M in total research, over $11 M of it from federal sources; DOD and DOE were the largest sponsors. It consistently ranks among the highest in per capita research funding at Stony Brook University.

The department's external advisory board supports the department by providing counsel on programs, career trajectories, industry engagement, and philanthropy.

Department Chair

Responsibilities

The new Department Chair of Materials Science & Chemical Engineering will be expected to:

- Lead a departmental initiative to develop and advance a compelling vision for its excellence in research, education, service, and impact which aligns with college and campus strategic plans.
- Work with CEAS, the rest of the university, and partners, to execute and align the department strategic plan to that of the college and campus strategic plans. Sustain and expand the department's scholarly excellence and position it as a leading program in the country.
- Foster, advocate, and promote cutting-edge, innovative undergraduate and graduate curricula and multidisciplinary research collaborations.
- Demonstrate a commitment to fostering a respectful and supportive environment by working with faculty and staff to ensure fair access to opportunities, encourage varied perspectives, and strengthen a culture of mutual respect.
- Establish and oversee a departmental culture and infrastructure to support laboratory safety and research compliance.
- Serve as an engaged, institutionally focused member of the dean's leadership team, contributing to the overall development of CEAS resources, direction, and success.
- Promote an engaging environment for tenure-track and non-tenure-track faculty through 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; develop and nurture the industrial advisory board.
- Create and maintain a supportive environment for faculty to pursue large-scale interdisciplinary center funding with major impact.
- Actively identify and secure resources that promote a culture of engagement, advance the department's efforts to strengthen relationships with its alumni, and bolster long-term departmental 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. Lead and establish the development of robust, innovative undergraduate and graduate programs that reflect the interdisciplinary mission of the department.

- Appoint undergraduate and graduate program directors, departmental 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.
- Support a robust program for the recruitment of graduate students.
- Set and communicate expectations for the research, teaching, and service activities of faculty, and evaluate faculty annually.
- Establish a clear faculty retention strategy for developing and sustaining scholarly excellence.
- Establish a departmental mentoring program 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.
- Standardize and establish transparency around course releases and other productivity-based incentives.
- Plan and administer the department's budget in consultation with the dean's office.
- Seek and facilitate external giving and resource development for the department.
- Design faculty recruitment efforts with department and center/institute colleagues and contribute to their success.

Strategic Opportunities

- Take advantage of the university's new all-funds model, in advancing academic excellence, driving enrollment growth, and aligning resources with the new budget model. Establish new forward-looking curricula to integrate emerging research and industry needs, degree programs and collaborations with other units as appropriate.
- Advance the culture of research productivity by building on our department's exceptional research growth in areas including but not limited to: (1) electron microscopy and in situ/in operando experiments, (2) materials for extreme environments/nuclear materials, (3) advanced materials for high temperature electronics and quantum technologies, (4) data-driven materials discovery combining AI/ML techniques and advanced synthesis/manufacturing, (5) bioinspired materials and soft matter engineering, (6) sustainable clean energy/energy storage materials, and (7) catalysis for green chemical manufacturing.
- Expand research in areas of national importance by leveraging existing strengths in CEAS or other Stony Brook departments/centers such as those focused on computer and data science, artificial intelligence, quantum information systems, medicine, healthcare, and critical materials, data science, AI, climate and clean energy, quantum information systems, and biomedical science. Leverage current departmental growth areas by leading strong collaborative efforts in fields such as advanced computational materials sciences and microstructural characterization techniques including but not limited to electron microscopy.

- By fostering strong academic development and positioning the programs for national recognition, the chair will guide the department toward becoming a prominent hub of research and education within New York State and across the nation.

Qualifications

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 to collaboratively develop a compelling vision to establish MSCE as a hub for research and education 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.

Required:

- An earned doctorate in a discipline appropriate for a faculty appointment in the College of Engineering & Applied Sciences
- A distinguished record of research, teaching, and academic mentoring commensurate with appointment as a tenured full professor at Stony Brook University
- A proven track record of scholarship and the ability to support a vibrant research program along with an outstanding record of professional achievement
- Excellent leadership and management abilities suited to guiding a world-class research and education program

Preferred:

- Demonstrated academic leadership experience and a strong commitment to collaborative, inclusive, and synergistic leadership that fosters a respectful and supportive environment for faculty, staff, and students at all levels
- A record of successful administrative experience including managing personnel, budgets, and academic operations at the department, center/institute, or school/college level
- A track of record of fund-raising

Senior researchers from industry or government with a proven track record of scholarship and professional leadership but limited academic experience are also encouraged to apply.

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. Academic year 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. With this role, Stony Brook University joined a small group of elite research universities entrusted with managing U.S. National Laboratories.

The University enrolled some 26,400 students in the fall of 2024 (18,000 undergraduate students and 8,400 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. 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 $500 M 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 new AI Innovation Institute (AI3), 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 in a transformative manner. 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 has retained Opus Partners (opuspartners.net) to support this recruitment. Craig Smith, Senior Partner, and Jeffrey Stafford, Senior Associate are leading the search. Inquiries, applications, and nominations should be sent to jeffrey.stafford@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 an inclusive, welcoming environment 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 February 20, 2026. Review of applications will begin shortly thereafter.

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.