Chemical and Molecular Engineering

Chairperson
Dilip Gersappe, Engineering Building 316
Dilip.Gersappe@stonybrook.edu

Graduate Program Director
Taejin Kim, Heavy Engineering Rm: 250D
Taejin.Kim@stonybrook.edu

Department Administrator
Ms. Chandrani Roy (631) 632-4174

Department Staff Assistant
Ms. Elaine Soto (631) 632-8483

Graduate Program Coordinator
Vacant
ESMandCME_GradInfo@stonybrook.edu (Existing students email here)
ESMandCME_GradAdmissions@stonybrook.edu (Prospective students/applicants email here)

Department Office
Engineering Building 314, Zip 2275

Degrees Awarded
B.E./ M.S. in Chemical and Molecular Engineering
M.S. in Chemical and Molecular Engineering;
Ph.D. in Chemical and Molecular Engineering

Website
https://www.stonybrook.edu/matscieng

Application
https://graduateschool.stonybrook.edu/apply/

Chemical Engineering

The Chemical and Molecular Engineering program, in the College of Engineering and Applied Sciences, offers graduate work leading to the Master of Science and Doctor of Philosophy degrees.
The primary mission of the graduate program is to train the next generation of chemical engineers who will drive important discoveries, develop new technologies, and apply innovative approaches to solve challenges in drug productions, food processing, chemicals manufacturing, fuel development, and other industries.
Our Chemical and Molecular Engineering program offers students a comprehensive curriculum, providing opportunities for advanced study and a deep understanding of chemical engineering theory and its applications across various engineering domains. These include catalysis, nanotechnology, computational modeling, environmental science, fluid mechanics, rheology, materials processing, polymers, thin films, biochemical engineering, biomedical engineering, biotechnology, separations, transport phenomena, and thermodynamics.
The guiding philosophy of our graduate program is to equip students with a broad spectrum of theoretical knowledge and hands-on experimental techniques. This ensures that graduates possess the skills necessary for professional research and teaching roles in the chemical engineering field. Our faculty members in the Chemical and Molecular Engineering program are actively engaged in research across diverse areas. They collaborate closely with graduate students on projects that blend both applied and fundamental aspects of chemical engineering.

Admissions

CME M.S. & PhD. Admission Requirements-

We are excited that you are considering our Graduate Program. Chemical and Molecular Engineering program offers admission to M.S. and Ph.D. programs. Admission to the M.S. and Ph.D. Programs are handled separately by the departmental Admissions

Minimum requirements for admission to graduate study in Chemical and Molecular Engineering (CME) are as follows:
1. A bachelor’s degree in Chemical Engineering (or a closely related field).
2. A grade point average of at least B (i.e., 3.0/4.0) in all mathematics, engineering, and science courses.
3. Results of the Graduate Record Examination (GRE) general test (Waived for Spring or Fall 2025);
4. For non-native speakers of English, results of the TOEFL exam with a score is required. Please reference for minimum score Official scores sent directly to the graduate school via ETS-Institutional code: 2548; Departmental code 69.
   1. Masters students that have completed a degree program from a U.S. institution may be eligible for a TOEFL waiver and need to request the waiver, please email Graduate Admissions at gradadmissions@stonybrook.edu.
   2. All PhD applicants with a TA stipend whose native language is not English must demonstrate a sufficient level of English-speaking proficiency (TOEFL Speaking score) and may be required to take OAE courses based on these measures.
5. Acceptance by both the Department of Materials Science and Chemical Engineering and the Graduate School.

Application Instructions

All applications must be completed online here. All additional required documents, such as, diplomas, transcripts, recommendation letters, Statement of Purpose etc. must be sent using the application portal.

You may download our Complete Application Checklist

All official and final transcripts, and other admission materials should be sent to:

Stony Brook University
Graduate School Office of Student Services
2401 Computer Science Building
Stony Brook, New York 11794-4433

Official E-Transcripts should be sent to: gradadmissions@stonybrook.edu

For application status and submission questions, including using the Slate system, please email: gradadmissions@stonybrook.edu

For program or curriculum related questions, please email: ESMandCME_GradAdmissions@stonybrook.edu

Application Deadlines:

Spring 2025:

MS Domestic  - November 15, 2024, 11:59pm (EST)
MS International - December 31, 2024, 11:59pm (EST)

PhD Domestic & International - November 15, 2024, 11:59pm (EST)

Fall 2025:

MS Domestic Application – July 15, 2025 by 11:59 PM (EST)
MS International Application – May 15, 2025 by 11:59 PM (EST)

PhD Domestic & International- January 1, 2025, 11:59pm (EST)

For Graduate Application & Admission FAQs, click here.

Accelerated BE/MS Program Admission Requirements

CME students are encouraged to apply to the five-year CME BE/MS accelerated degree program in the spring semester of their junior year. The application must include:

• Students in their Junior Spring semester with a GPA of 3.0 in the major courses in the Chemical and Molecular Engineering Undergraduate program must email ESMandCME_GradAdmissions@stonybrook.edu and inform the department about their interest to be admitted in the BE/MS Accelerated Program in Chemical and Molecular Engineering.
• Email the department your recent unofficial transcript.
CHEMICAL AND MOLECULAR ENGINEERING (CME)  

Fall 2024

- Consult with CME Undergraduate Program Director (UPD) and Graduate Program Director (GPD) regarding UG Senior Year and MS accelerated program Schedule.

- Once the department receives all of the above information and the GPD/Graduate committee accepts the student in the program, the student is extended an offer to accept admission in the CME Accelerated program- student signs and returns the offer letter. The department then completes the Accelerated Participant Program (APP) Declaration Form to the Graduate School.

- Once accepted by Graduate school, the student must obtain email approval from the GPD and UPD to enroll in classes, once approved via email, the student must complete the Permission for APP students to Enroll in Grad Courses form and upload the email approvals to get approvals from Graduate School to enroll in classes before the semester begins. Please note that the student may elect to take all 6 credits of the M.S. coursework in one semester, although it is not recommended

Transfer Students

Students who transfer to Stony Brook must complete at least one semester at Stony Brook before they will be considered for admission to the five-year BE/MS program and decisions will be made on a case-by-case basis to ensure they meet all other requirements to qualify for the combined degree program.

Financial Support

Admitted Ph.D. students are typically offered financial support in the form of teaching or research assistantships, which include full tuition and broad-based fees. Admission into this program is very competitive.

M.S. students are typically admitted with no financial support; however, full time MS students in the thesis track may be appointed as Research Project Assistants with an opportunity to enter the PhD program at the discretion of a faculty member upon availability of funds. Information regarding tuition and other costs can be found here.

Research Activities

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 Department has been successful in obtaining external funding for research and currently has the highest per capita faculty funding within the University. In 2022, the Department had faculty research expenditures totaling over $10.5M. Our 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 and the Institute of Gas Innovation and Technology. 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 of our faculty members hold joint appointments at BNL, while Brookhaven scientists participate in research and teaching within the Department. The DOE awarded the contract to manage BNL in 1998 to Brookhaven Science Associates, a consortium of other universities led by Stony Brook and the Battelle Memorial Institute. The University’s relationship with this premier research facility greatly enhances both the Department’s and Stony Brook’s research programs.

At BNL, the facilities available to the Department include particle accelerators for carrying out ion beam surface modification experiments and highly sophisticated surface analysis probes. The National Synchrotron Light Source (NSLS) is also located at BNL. As one of the participating research teams at NSLS, the Synchrotron Topography Research Group, centered in Stony Brook’s Department of Materials Science and Engineering, is using special X-ray methods to image nondestructively dislocation microstructures. This enables image-detailed descriptions of dislocation motion and structures attendant to crystal growth and plastic deformation and fracture, as well as to interesting materials behaviors. The topographic method is also being used in department-based studies of surface chemical reactivity.

Our ties with industry are growing stronger; faculty members are working with industry on joint research projects and submitting cooperative proposals to outside agencies. The Materials Science Department has led the effort in joint industry-University projects within the College of Engineering through the New York State Strategic Partnership for Industrial Resurgence (SPIR) program. Both the Center for Thermal Spray Research and the Institute for Gas Innovation and Technology have several industrial partners.

Stony Brook’s own facilities include state-of-the-art low-energy electron diffraction LEED; a state-of-the-art scanning electron microscope and a transmission electron microscope, both equipped with analytical capabilities and the latest software for electron diffraction simulation and image processing; an atomic force microscope; and electron spectroscopy for chemical analysis (ESCA) IAES/SIMS Infrared Microscopy units, as well as characterization facilities that include equipment for microanalysis and X-ray techniques.

Much of the research work has included collaborations with other universities, industries, national laboratories, and government facilities such as the Army Research Laboratory, Weapons and Materials Directorate (Aberdeen, MD). Our faculty having funding from a range of federal agencies including the NSF, DOE, Department of Defense and Department of Education.

A common theme in all our programs is that we integrate the research experience as part of our educational mission. As a result, we have a vibrant, active department in which undergraduate students, graduate students, faculty and staff work together to tackle grand challenges that require new materials and processes.

Consistent with Stony Brook’s designated mission as a research center, the cornerstone of the Department’s academic program is the graduate work leading to the research-oriented M.S. and Ph.D. degrees.

Chemical and Molecular Engineering, MS and PhD
The MS degree in Chemical and Molecular Engineering is designed primarily for students seeking to establish a strong foundation in the principles of chemical and molecular engineering. This program prepares students for further advanced study or careers as professional engineers. Master's degree candidates have the option to choose between a thesis or non-thesis track.

The PhD degree in Chemical and Molecular Engineering offers a comprehensive education in the fundamental principles of chemical engineering alongside an immersive research experience. This program is tailored to prepare students for careers in academia, government or private laboratories, research and development in industry, or other research-focused roles.

Requirements for the MS in Chemical and Molecular Engineering

Course requirements: Successful completion of a total of 30 course credits, which include four core courses (CME 501, CME 502, CME 503, CME 504) for a total of 12 credits, a choice of two out of five advanced elective chemical engineering courses (CME 511, CME 512, CME 513, CME 514, CME 515) for a total of six credits, two out of five specialization elective courses, all requiring capstone projects; (CME 522, CME 523, CME 524, CME 525, CME 526) for a total of six credits. If any of the above courses are not offered, students can replace/substitute a course with any other course offered in the program and/or in the department with GPD approval.

In addition to these courses the different programs have the following requirements:
Masters (MS) Degree requires another six credits for a total of 30 credits. Each track has different requirements for these six credits as follows;

Track:

Non-Thesis:

The election of this option must be made by the student by the end of the first semester in the program and it will be considered a terminal degree. Six credit of special topics (CME 696), additional electives or research (CME 599), and satisfactory completion of a capstone project as part of the specialization elective course selection

Thesis:

The election of this option must be made by the student by the end of the first semester in the program. Students may not transfer to the Non-Thesis Option once registered for a Thesis Master’s track. Students are required to complete six credits of research course (CME 599), which culminate in an original Master’s thesis. Students on this track may change into the PhD program at the completion of this track.

Requirements for the Ph.D. Degree in Chemical and Molecular Engineering

A. Plan of Work

Before completion of one year of full-time residency, the student must have selected a research advisor who agrees to serve in that capacity. The student will then prepare a plan of further coursework. This must receive the approval of the student’s advisor and of the Graduate Program Committee.

B. Coursework

• An average grade of B or higher is required for all courses.
• A minimum of 24 graduate course credits is required to graduate (excluding CME 555, 599, 697, 698, and 699).
• The 24 course credits must include the following four core courses: CME 501, 502, 503 and 504. If the student does not receive a minimum of a B in a core course, he or she may repeat that course one other time.
• All students must complete CME 555 Teaching and Mentoring Techniques. This course does not count towards the 24 graduate course credits
• The student must pass at least three credits of CME 698 Practicum in Teaching and six credits of CME 699 Dissertation Research on Campus.
• All courses taken outside the Department require permission from the Graduate Program Director.
• All PhD students must act as teaching assistants for five semesters (regardless of support), and they must register for CME 698 Practicum in Teaching- in all five semesters for a total of 3 credits and 0 credits for the rest.

C. Preliminary Examination

The preliminary examination must be taken before the beginning of the student’s fifth semester. This is an oral examination designed to test the student’s ability to utilize his or her chemical engineering background to carry out research in a chosen field of study, and to make clear written and oral presentations of research. At least ten days prior to the examination, the candidate should submit a research proposal (10-15 pages) to the examiners that places the research in context of other work in the area, demonstrates original thought, clearly outlines its broader impact, and provides a sustainable timeline for its completion.

The examination committee will consist of three Chemical and Molecular Engineering faculty members, and one member from another department or institution. If a second examination is required, it must be completed by the tenth week of the fifth semester.

Once the student has advanced to candidacy, the student must report to the committee at least once a year before the end of the spring semester on progress towards his/her dissertation.

D. Advancement to Candidacy
After the prelims, the department processes the Advancement to Candidacy once the student’s preliminary examination committee has signed to confirm that the student has passed the prelims. It is important to note, that a student must have no “I” or “U” grades for courses that count towards the degree to advance to candidacy. He/she must have completed all coursework requirements to advance to candidacy.

E. Dissertation
The most important requirement of the Ph.D. degree is the completion of a dissertation, which must be an original scholarly investigation. The dissertation shall represent a significant contribution to the scientific literature, and its quality shall be compatible with the publication standards of appropriate and reputable scholarly journals. At least two semesters should elapse between the preliminary exam and submission of the dissertation.

F. Defense
The candidate shall defend the dissertation before an examining committee consisting of four members, including the research advisor, two members of the Materials Science and Chemical Engineering Department, and one member from outside the Department.

G. Time Limit
All requirements for the Ph.D. degree must be completed within seven years after completing 24 credit hours of graduate courses in the program.

Requirements for the Bachelor of Science Degree/Master of Science Degree Accelerated Program
The Accelerated BE/MS program is designed to allow Chemical and Molecular Engineering (CME) students in good academic standing to graduate with both a Bachelor's degree and a Master's degree in five years. This is made possible by allowing the students to take up to 6 credits of graduate courses to substitute for 6 credits of undergraduate specialization courses as an undergraduate student that can be counted towards the MS degree, consistent with the Graduate School policy. However, the undergraduates can only take graduate technical electives (not core courses), totaling 6 credits and completing the remaining 24 credits to fulfill the 30-credit requirement for completion of the M.S. degree in their fifth year.

The program will be highly selective, and it is anticipated that only a few students will be admitted each year. The admissions requirements for students entering the accelerated degree program are as follows:

1. Applicant must be a senior in the CME major with a cumulative undergraduate GPA of at least 3.3 at the time of application and must graduate from the undergraduate program that year;
2. GPA in courses required in the CME undergraduate major of at least 3.3;
3. Three letters of recommendation from Stony Brook faculty members.
4. Please contact the department at ESMandCME_GradAdmissions@stonybrook.edu to apply to the program.

Applications are reviewed by the CME Graduate Admissions Committee and students will be notified if they have been admitted to the Accelerated Program. The BE/MS is a sequential degree program; Students typically matriculate to the graduate career at the beginning of their third semester in the accelerated program. Students must have a cumulative GPA of 3.3 or higher to be admitted to the Graduate School. The Master's in Chemical Engineering is a 30 credit program and 24 of those credits must be earned as a matriculated graduate student.

Students who transfer to Stony Brook must complete at least one semester at Stony Brook before they will be considered for admission to the five-year BS/MS program and decisions will be made on a case-by-case basis to ensure they meet all other requirements to qualify for the combined degree program.

Faculty

Faculty of Chemical and Molecular Engineering Program

Department of Materials Science and Chemical Engineering

Professors
Koga, Tadanori, CME Undergraduate Program Director, Ph.D., 1998, Kyushu University, Research: green nanofabrication of polymer thin films; chemical recycling of waste plastics and methane hydrate as a future energy resource

Mahajan, Devinder, Ph.D., 1979, University of British Columbia, Research: Inorganic chemistry; fuel cells; catalysis.

Tannenbaum, Irena, PhD 1982, ETH Zurich, Research: Polymers, Biomaterials, nanotechnology and nanomedicine.

Associate Professors
Kim, Taejin, CME Graduate Program Director, PhD, 2007, Lehigh University, Research: Catalysis and Reaction Engineering, Operando methods of characterizing catalytic reactions, biomass conversion to fuels and chemicals.

Assistant Professors
Lee, Dennis, PhD, 2019, North Carolina State University, Research: Chemical Protective Metal-Organic Framework Thin Films on Fiber Systems Driven by Atomic Layer Deposition

Stony Brook University Graduate Bulletin: www.stonybrook.edu/gradbulletin
Rajput, Nav Nidhi, PhD, 2013, Louisiana State University, Research: Molecular dynamics studies of ionic liquids, Nanoporous materials; Electrochemistry

Seo, Hyowon, PhD, 2019, Massachusetts Institute of Technology, Research: Electrocatalytic synthesis of chemicals and materials, Catalyst design, Catalytic conversion of CO2, Continuous flow process, Green chemistry, Sustainability

**Faculty of Practice**

Meng, Yizhi, PhD, 2003, Cornell University, Research: Food Engineering

Nitodas, Steve, PhD, 2001, University of Rochester, Research: Kinetic Investigation and Modeling of the Chemical Vapor Deposition of Aluminum Oxide, Silicon Oxide and Aluminosilicates from Mixtures of Metal Chlorides, Carbon Dioxide, and Hydrogen

**Crossover with Materials Science and Engineering**

**Distinguished Professors**

Rafailovich, Miriam, Ph.D., 1980, Stony Brook University: Polymeric liquids; phase transitions; thin film wetting phenomena; atomic force microscopy; ion, X-ray, and neutron scattering.

Sampath, Sanjay, Ph.D., 1989, Stony Brook University: Thermal spraying; protective coatings; functioning graded materials; thick film electronics and sensors.


**Professors**

Clayton, Clive R., Ph.D., 1976, Surrey University, England: Environmental degradation of materials; XPS; AES; dynamic and static SIMS; electrochemical analysis synthesis by ultra-fast laser ablation; RHEED; protective coatings.

Dudley, Michael, Ph.D., 1982, University of Warwick, England: Synchrotron topography; crystal defects; mechanical properties.

Frenkel, Anatoly., PhD 1995, Tel Aviv University, Application of synchrotron measurements in materials, Structure-property-function relationships in applied nanomaterials, catalysis

Gersappe, Dilip., Interim Chairperson, Ph.D., 1992, Northwestern University: Polymer theory and simulation, Modeling of complex fluids and electrochemical processes

Orlov, Alexander, Ph.D., 2005, University of Cambridge, UK, Physical Chemistry: M.Phil. Chemistry University of Cambridge, UK; M.S.E. Engineering, University of Michigan, USA; M.E./B.E. Engineering, National Technical University, Ukraine. Materials for environmental applications; physical chemistry, environmental nanotechnology and photocatalysis

Sokolov, Jonathan C., ESM Graduate Program Director, Ph.D., 1983, Stony Brook University: Surface and interface properties of polymers and blends; phase transitions; neutron and X-ray scattering; EXAFS; SIMS.


**Associate Professors**

Chen-Wiegart, Karen, PhD, 2011, Northwestern University, x-ray imaging and spectroscopic techniques to study novel functional materials. Energy storage and conversion, nano-/meso-porous materials, thin film & surface treatment

Halada, Gary, Ph.D., 1993, Stony Brook University: Electron spectroscopy; electrochemistry; surface engineering; optical spectroscopy; environmental remediation.

Venkatesh, T.A., Ph.D., 1998, Massachusetts Institute of Technology: Nanomaterials, Smart Materials, Materials for MEMS and biomedical applications

**Assistant Professors**

Sprouster, David, Ph.D., 2010, Physics, Australian National University (Canberra), Research School of Physics and Engineering: “Ion Beam Formation and Modification of Cobalt Nanoparticles”

**Associate Professor of Practice**

Koga, Maya Ph.D. 2005, Kyoto University, Japan, Polymer Physics.

**Research Faculty**

Marschilok, Amy, Associate Professor, Stony Brook University; Co-Director, Institute for Energy Sustainability and Equity, Stony Brook University; Scientist and Division Manager, Brookhaven National Laboratory; Ph.D., University at Buffalo, Chemistry; Areas of Interest: Electrochemistry, Electrochemical Materials Science
Adjunct Faculty

Abbooud, Marcus, Ph.D., 2003, University of Bonn, Dental Medicine; “Correlation between gingival recession and tooth deflections in patients with mandibular crowding”


Arbab, Hassan, M., Dual Ph.D., 2011, Electrical Engineering and Nanotechnology

Berndt, Christopher, Ph.D., 1981, Monash University, Materials Science Engineering

Bhatt, Vatsal, Ph.D., 2014, CEPT University Ahmedabad, India, Urban Energy, Water and Climate Change

Boscoboinik, Jorge Anibal, Ph.D., 2010, University of Wisconsin Milwaukee, Chemistry; Small Organic Molecules in Transition Metal Surfaces and Monte Carlo Simulations of Bimetallic Surface Alloys.

Butcher, Thomas, Ph.D. 1987, Stony Brook University, Mechanical Engineering

Cen, Jiajie, Ph.D., 2019, Stony Brook University, Materials Science Engineering


Concepcion, Javier, Ph.D 2002, Pontifical Catholic University of Chile (Chile) and Georgia Institute of Technology (USA): Inorganic Chemistry

DiMarzio, Donald, Ph.D. 1987, Physics, Rutgers University New Brunswick, NJ.

Dwivedi, Gopal, Ph.D., 2011, Stony Brook University, Materials Science & Engineering


Gangwal, Santosh, Ph.D., 1977, University of Waterloo, CA, Chemical Engineering

Ge, Mingyuan, Ph.D., 2015, Materials Science, University of Southern California (USC), CA

Hainfeld, James, Ph.D., 1974, University of Texas, Chemistry and Biochemistry

Harrison, Robert, Ph.D., 1984, University of Cambridge, Theoretical Chemistry

Htun, Nay, Ph.D, Chemical Engineering, Imperial College, U.K.

Hu, Enyuan, Ph.D., 2015, Stony Brook University, Mechanical Engineering, Solid-State Chemistry

Huang, Xiaojing, Ph.D., 2009, Stony Brook University, NY: Physics; Cryo Soft X-ray Diffraction Microscopy with Biological Samples

Huang, Xianrong, Ph.D., 1995, Nanjing University, China: X-ray typography

Jerome, Luckner John, Ph.D., 2005, Stony Brook University, Materials Science and Engineering.

Johnson, Curtis, Ph.D., Pennsylvania State University, Metallurgy

Keister, Jeffrey, Ph.D. 1997: University of North Carolina at Chapel Hill, Physical Chemistry.

Krstic, Predrag Ph.D., 1982, City College of CUNY, NY; Theoretical Physics; Atomic Physics

Kwon, Gihan, Ph.D., 2009, University of Alabama, Chemical & Biological Engineering

Lee, Wilson, Ph.D., 2007, Stony Brook University, Materials Science, Cosmetics Research and Development

Li, Qiang, Ph. D., 1991, Iowa State University at Ames: Energy and electronic materials; synthesis and characterization.

Lindberg, Jake C., Ph. D., 2021, Stony Brook University, Chemical & Molecular Engineering

Liu, Mingzhao, Ph.D., 2007, The University of Chicago, Chemistry: Solar water splitting; Pulsed Laser Deposition (PLD), Atomic Layer Deposition (ALD); Colloidal nanoparticle synthesis; Numerical simulation for nanophotonic/plasmonic structures

Stony Brook University Graduate Bulletin: www.stonybrook.edu/gradbulletin
Liu, Qun, Ph.D., 2006, Cornell University, Ithaca, NY: Biophysics, Biochemistry

Lombardi, Jack, Ph.D., 2015, Stony Brook University, Materials Science and Engineering

Lu, Deyu, Ph.D., Physics, University of Illinois at Urbana-Champaign: Empirical nanotube model: Applications to water channel and nano-oscillators

Lu, Mingzhao, Ph.D., 2007, The University of Chicago, Chemistry; Solar water splitting; Pulsed Laser Deposition (PLD), Atomic Layer Deposition (ALD); Colloidal nanoparticle synthesis; Numerical simulation for nanophotonic/plasmonic structures.

Lu, Fang, Ph.D., 2007, Chinese Academy of Sciences: Condensed Matter Physics

May, Katherine Flynn, Ph.D, 2014, Stony Brook University, Materials Science and Engineering, Research field: Thermal Spray Formed Ceramic

Meng, Qingpeng, Ph.D, 2002, Shanghai Jiao Tong University, Materials Science and Engineering, Research field: Phase Transformation & Nanostructured Materials

Nam, Chang-Yong, Ph.D., 2007, University of Pennsylvania, Materials Science and Engineering; Infiltration synthesis, with a focus on material hybridization & nanopatterning; Atomic layer deposition for oxidation catalysts; Organic & hybrid photovoltaics; Nanowire electronics; Semiconductor device physics & characterization

Neiser, Richard A, Ph.D. 1989, Stony Brook University, Materials Science, and Engineering

Okoli, Celest, Ph.D., 2018, Stony brook University, Materials Science & Chemical Engineering

Petrovic, Cedomir, Ph.D. 2000, Florida State University, Physics.

Petrash, Stansilas, Ph.D., 1998, Polymer Science, University of Akron: "Neutron Reflectivity Studies of Human Serum Albumin Adsorption onto Well-Defined Surfaces"

Rodriguez, Jose, Ph.D., 1988, Indiana University, Chemistry, Catalysis and Surface Science

Sadasivan, Chandramouli, Ph.D. 2008, University of Miami, Neurosurgery

Salatto, Daniel, Ph.D. 2022, Stony Brook University, Chemical and Molecular Engineering

Shah, Raj, Ph.D, 1995, Pennsylvania State University, Chemical Engineering.

Sharma, Priyanka, Ph.D., 2014, CSIR-National Chemical Laboratory, India, Material Chemistry and Nanomaterials

Sharma, Sunil, Ph.D., 2016, IIT Bombay, Mumbai, India, Material Chemistry and Nanomaterials

Singh, Gurtej, Ph.D., 2012, Rensselaer Polytechnic Institute (RPI), Troy, NY; Chemical and Biological Engineering


Smith, Gregory, PhD. 2018, Stony Brook University, Materials Science and Engineering

Stach, Eric, Ph.D., 1998, University of Virginia, Materials Science and Engineering

Stacchiola, Dario, Ph.D., 2002, University of Wisconsin-Milwaukee, Physical Chemistry, Surface Science

Taboada, Stephanie, Ph.D., 2023, Stony Brook University, Chemical and Molecular Engineering.

Tan Kun, Ph.D., 2022 Stony Brook University, Chemical and Molecular Engineering

Tawfik, Hazem, P.E. and a Certified Manufacturing Engineer; Director of the Institute of Research and Technology Transfer (IRTT) at Farmingdale State College - State University of New York

Veerasamy, Victor, Ph.D., 1994 University of Cambridge, England

Veerasamy, Yovana, Ph.D., 2020 University of Toledo, Administration and Policy, Internationalization Policy


Wang, Jia, Ph.D., 1987, Physical Chemistry, City University of New York: Surface Electrochemistry and Electrocatalysis

Wang, Mu, Ph.D., 1991, Physics, Nanjing University, Jiangsu, China

Weil, Edward, Ph.D., 1953, University of Illinois, Organic Chemistry
Wiegart, Lutz, Ph.D., 2007, Physics, Université Joseph Fourier (Grenoble, France), Commissariat à l'énergie atomique (CEA, Grenoble, France), European Synchrotron Radiation Facility (ESRF, Grenoble, France) and University of Dortmund (Germany)

Wu, Qin, Ph.D., 2004, Duke University, Chemistry

Xiao, Xianghui, PhD., 2002, Institute of High Energy Physics, Chinese Academy of Science, China, Physics

Xin, Huolin, Ph.D., 2011 Cornell University, Physics

Xue, Yuan, Ph.D. 2019, Stony Brook University, Materials Science and Engineering

Yang, Haotian, Ph.D. 2023, Stony Brook University, Materials Science and Engineering

Zhang, Zhiwei, Ph.D. 2003, Colorado School of Mines, Chemical Engineering, Reaction Kinetics and Reactor Engineering

**Affiliate Faculty**

Bhatia, Surita, Ph.D., 2000, Princeton University

Takeuchi, Kenneth, Ph.D. Ohio State University

**Emeritus Faculty**

Herman, Herbert, Emeritus, Ph.D., 1961, Northwestern University: Protective coatings; thermal spray; composites; marine materials.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*