STRIDE is an innovative training program that provides STEM graduate students with unique interdisciplinary skills to assist, create, and eventually lead in the translation of complex data-enabled research into informed decisions and sound policies.

In addition to training in cutting-edge data analytics and visualization, STRIDE includes the trans-disciplinary skills of decision support including science communication, understanding the perspectives of various stakeholders, and translating scientific uncertainty, that are too often not explicitly taught.

This end-to-end training program aims to transcend traditional graduate education by integrating multiple disciplines and novel training elements that span spatial data, advanced visual data analytics, high-performance and data-centric computing, a science discipline, communication including interpersonal skills and modern media, decision making, and relevant internships.

The departments involved are: Applied Math, Biomedical Informatics, Computer Science, Electrical & Computer Engineering (ECE), Ecology & Evolution, Journalism, Marine and Atmospheric Sciences, Public Health, and Technology & Society.

The centers/institutes involved are: IACS, Advanced Energy Research and Technology Center (AERTC), Alda Center for Communicating Science, Center of Excellence in Wireless and Information Technology (CEWIT), Center for Smart Energy Technologies (SET), Center for Visual Computing (CVC), and Center for Inclusive Education (CIE).

Admission Requirements

PhD and MS/MA matriculated students in the following departments are eligible to participate in the certificate program: Applied Math and Statistics, Biomedical Informatics, Computer Science, Electrical & Computer Engineering, Ecology & Evolution, Journalism, Marine and Atmospheric Sciences, Materials Science, Public Health, Technology & Society. Students must have the permission of their advisors and their Graduate Program Directors before enrolling in the certificate program. Students must complete, with the requisite signatures, and submit to the Graduate School the form entitled Permission to Enroll in a Secondary Certificate Program.

Facilities

The STRIDE program utilizes facilities within the participating departments: Applied Math and Statistics, Biomedical Informatics, Computer Science, Electrical & Computer Engineering, Ecology & Evolution, Journalism, Marine and Atmospheric Sciences, Materials Science, Public Health, Technology & Society

Degree Requirements

- 15 credits, courses can be double counted toward the certificate and the student's major
- Three core journalism courses:
  1. JRN 501: Distilling Your Message (1-credit)
  2. JRN 503 Improvisation for Scientists (1-credit)
  3. JRN 511: Scientific Communication for Decision Makers (1-credit)
- Statistics course – Student can take a statistics course from their home department (3-credits)
- MAR 534: Scientific Decision Support (1-credit)
- Elective in policy or applied science (3-credits)
- CSE 564: Visualization (3-credits)
- Seminar electives (2): Two 1-credit seminar electives in environment or energy (2-credits)

To matriculate into the STRIDE certificate program, please complete the following form: Permission to Enroll in Secondary Certificate. Please complete and submit to the Graduate School via email to gradadmissions@stonybrook.edu, copying Jennifer McCauley on the email jennifer.mccauley@stonybrook.edu. Students are encouraged to enroll into the certificate program as early as possible in their graduate studies in order to maximize the amount of courses that can fulfill dual requirements.

STRIDE Course Catalog

Faculty
Jonas Almeida, PhD, University Nova – Lisbon, Portugal, Biomedical Informatics
Mónica Bugallo, PhD, University of A Coruña, Electrical and Computer Engineering
Liliana Dávalos, PhD, Columbia University, Ecology and Evolution
Robert J. Harrison, PhD, University of Cambridge, Applied Mathematics and Statistics
Zhenhua Liu, PhD, California Institute of Technology, Applied Mathematics and Statistics
Heather Lynch, PhD, Harvard University, Ecology and Evolution
Klaus Mueller, PhD, Ohio State University, Computer Science
Jaymie Meliker, PhD, University of Michigan School of Public Health, Public Health
Janet Nye, PhD, University of Maryland, Marine and Atmospheric Science
Christine O’Connell, PhD, Stony Brook University, Journalism
Jason Trelewicz, PhD, Massachusetts Institute of Technology, Materials Science and Chemical Engineering
Laura Wehrmann, PhD, Max Planck Institute for Marine Microbiology, Marine and Atmospheric Science
Thomas Woodson, PhD, Georgia Institute of Technology, Technology and Society
Erez Zadok, PhD, Columbia University, Computer Science
Minghua Zhang, PhD, Institute of Atmospheric Physics, Academia Sinica, Marine and Atmospheric Science

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