Open Faculty Search

Department of Civil and Environmental Engineering & Department of Marine and Environmental Sciences

Northeastern University

Environmental and Public Health Microbiology
About Northeastern

Founded in 1898, Northeastern is a global research university and the recognized leader in experience-driven lifelong learning. Our world-renowned experiential approach empowers our students, faculty, alumni, and partners to create impact far beyond the confines of discipline, degree, and campus.

Our locations—in Boston; Charlotte, North Carolina; London; Portland, Maine; San Francisco; Seattle; Silicon Valley; Toronto; Vancouver; and the Massachusetts communities of Burlington and Nahant—are nodes in our growing global university system. Through this network, we expand opportunities for flexible, student-centered learning and collaborative, solutions-focused research.

Northeastern’s comprehensive array of undergraduate and graduate programs—in a variety of on-campus and online formats—lead to degrees through the doctorate in nine colleges and schools. Among these, we offer more than 195 multi-discipline majors and degrees designed to prepare students for purposeful lives and careers.

*Pictured: Cape Cod National Seashore, a 2-hour drive from Northeastern’s Boston campus.*
About the Opportunity

Northeastern University invites applications for tenure-track positions for crosscollege, joint appointments. We seek candidates whose research addresses key challenges in \textbf{Sustainable Water Systems and Coastal Ecosystems}, broadly defined. One primary appointment will be in the Department of Marine and Environmental Sciences in the College of Science, and one primary appointment will be in the Department of Civil and Environmental Engineering in the College of Engineering. Additional joint appointments may be made with other departments and colleges, and/or affiliations may be made with university institutes.

\textbf{Key fields of study include:}

\textbf{Ecological Genomics}, with a primary appointment in the Department of Marine and Environmental Sciences. We are interested in candidates who, in the broadest terms, leverage genomic approaches and data to study and improve the sustainability of ecosystems challenged by environmental change. Candidates may use field, laboratory/experimental, and/or computational approaches to provide novel solutions related to the effects of climate change or habitat perturbation on the health of natural systems, thereby improving efforts focused on ecological restoration, stock assessment of fisheries, conservation and management, selective breeding, aquaculture, or other important outcomes.

\textbf{Environmental and Public Health Microbiology}, with a primary appointment in the Department of Civil and Environmental Engineering. Candidates investigating innovative engineering solutions across any aspect of the water microbiome and water security theme are encouraged to apply. Potential topics may include but are not limited to, microbial responses to environmental systems under stress, ecotoxicology linked to environmental contamination, environmental epidemiology of contaminants or pathogens exposure, environmental exposure and health monitoring, molecular mechanisms for biotechnological processes, or resource recovery in water systems. Candidates may also apply a broad range of approaches, including, but not limited to, bioinformatics or data science approaches, molecular biology, synthetic biology, sensors, multi-scale kinetic modeling, or process optimization.

Applications are invited for positions at the rank of Assistant Professor (tenure-track) beginning in academic year 2022-2023. Exceptional senior candidates will be considered for appointment at higher ranks.
Faculty will have the opportunity to collaborate in cross-disciplinary teams across the University and will complement existing strengths that leverage genomic approaches and data to study the impacts of environmental change and disease on human communities and marine systems, the efficacy of engineered treatment or ecological restoration approaches, and the role that microbes play as sentinels of environmental contamination and in nutrient cycling and ecosystem function.

Northeastern is a top-tier research university and premier experiential education institution, and is home to the Coastal Sustainability Institute https://www.northeastern.edu/csi/, the Global Resilience Institute https://globalresilience.northeastern.edu/, the Barnett Institute for Chemical and Biological Analysis https://cos.northeastern.edu/barnett/, the Center for Drug Discovery https://research.northeastern.edu/center-for-drug-discovery/, and the Institute for Chemical Imaging of Living Systems https://cils.northeastern.edu/, the Institute for Experiential AI https://www.northeastern.edu/experientialai/, the NSF-funded Center for High-Rate Nanomanufacturing (CHN) https://coe.northeastern.edu/coe-research/researchcenters-institutes/center-for-high-rate-nanomanufacturing-chn/, and the Sherman Center for Engineering Entrepreneurship Education https://www.northeastern.edu/sherman/, providing a rich multidisciplinary intellectual environment.

Northeastern is located in the heart of Boston, one of the world’s leading biological sciences innovation hubs, and benefits from the intellectual and cultural vitality of an urban environment.
The Department of Marine and Environmental Sciences is strongly interdisciplinary, with 22 tenured and tenure-track faculty (7 of whom have joint appointments in other colleges across Northeastern) and 4 non-tenure-track teaching faculty. In addition to internationally recognized efforts in coastal sustainability research via the Coastal Sustainability Institute, research in the Department of Marine and Environmental Sciences spans broad disciplines that are central to environmental and sustainability science and the life sciences, including ecological and evolutionary genomics, biogeochemistry and climate change science, coupled human-natural systems, nature-based solutions, coastal dynamics, ecological restoration, fisheries science, and the ecology and evolution of natural systems.

The Department of Marine and Environmental Sciences administers or co-administers programs in Environmental and Sustainability Science, Environmental Studies, Ecology and Evolutionary Biology, and Marine Biology for over 400 undergraduates, and it trains over 120 students in PhD, Masters and Professional Masters programs. The Department is also home to the Marine Science Center and the Ocean Genome Legacy and is contributing to the BRIDGE (Breakthrough Informatics for Data for Genes to Ecosystems) Research Cluster. With the College of Science under new leadership, the College and the Department of Marine and Environmental Sciences are in a vibrant expansion phase.

The Department of Civil and Environmental Engineering, also strongly interdisciplinary, has 31 tenured and tenure-track faculty (9 of whom have joint appointments in other colleges across Northeastern) and 4 non-tenure-track teaching and research faculty. The department houses major research centers including the NIH-sponsored program Puerto Rico Testsite for Exploring Contamination Threats (PROTECT) and the NIH-sponsored Center for Research on Early Childhood Exposure and Development in Puerto Rico (CRECE). The department has interdisciplinary strengths in Environmental Health, Civil Infrastructure Security, and Sustainable Resource Engineering, with an overarching theme of Urban Engineering for much of the research and education.

The Department of Civil and Environmental Engineering administers or co-administers programs across several B.S., M.S., and Ph.D. degrees, including interdisciplinary combined majors and an interdisciplinary Ph.D.’s, with for over 400 undergraduates, over 160 M.S. students, and over 80 Ph.D. students. A university-wide vision for use-inspired transformative research that crosses traditional disciplinary boundaries has resulted in strong crossdepartmental ties with other research centers and clusters across the College of Engineering, College of Science, Bouvé College of Health Sciences, Khoury College of Computer Sciences, College of Arts, Media and Design, D’Amore-McKim School of Business, and the College of Social Science and Humanities.

The tenure and promotion process values collaborative research and teamwork. Hires will be mentored for success, with mentoring teams and group guidance. In addition, a strong and effective faculty development strategy is part of the Northeastern institutional mission. The ADVANCE Office of Faculty Development office works in conjunction with the Office of Research Development (ORD), the Office of Institutional Diversity and Inclusion (OIDI), the Center for Advancing Teaching and Learning Through Research (CATLR), and University Decision Support (UDS) to provide programs and trainings to further develop and support a thriving faculty.

At Northeastern University, we embrace a culture of respect, where each person is valued for their contribution and is treated fairly. We oppose all forms of racism. We support a culture that does not tolerate any form of discrimination and where each person may belong. We strive to have a diverse membership, one where each person is trained and mentored to promote their success.
Responsibilities:

Responsibilities will include teaching undergraduate and graduate courses, conducting an independent and externally funded research program, participating in departmental, college, and university service, and being an active, recognized leader. Qualified candidates must have experience in, or a demonstrated commitment to, working with diverse student populations and/or in a culturally diverse work and educational environment.

Qualifications:

A PhD in Biology, Evolutionary Biology, Molecular Biology, Environmental Engineering, Civil Engineering or a related discipline as described above by the appointment start date is required. Postdoctoral research experience, while recommended, is not required. All applicants should have a strong record of scholarly accomplishment that demonstrates research productivity and the ability to perform cutting edge research. Candidates seeking appointment at the Associate or Full Professor level should have substantial research productivity and an established history of grant support and academic service.

Salary Grade: FAC
Additional Information

How to Apply: Interested candidates should apply with a curriculum vita that includes a list of publications, statements addressing the prompts below, a copy of one sample journal paper, and at least four references with contact information. Applications will be reviewed beginning on December 1, 2021.

Candidates interested in having their primary home in the College of Science should visit the Northeastern University Careers website https://careersmanager.pageuppeople.com/879/cw/en-us/listing#recent-jobs and search for the Assistant Professor position in Ecological Genomics. Questions regarding this position should be directed to Dr. Geoffrey C. Trussell at g.trussell@northeastern.edu.

Candidates interested in having their primary home in the Department of Civil and Environmental Engineering should visit the college website https://coe.northeastern.edu/faculty/faculty-hiring/, click on Faculty Positions, and apply to the position on Environmental and Public Health Microbiology. Questions regarding this position should be directed to Taryn Quiroa Sullivan at ceewater@coe.neu.edu.

Successful faculty at Northeastern will be dynamic and innovative scholars with research and teaching excellence and a commitment to contributing to improved equity, diversity, and inclusion. Thus, strong candidates for this faculty position will have the expertise, knowledge, and skills to build their research, pedagogy, and curriculum in ways that reflect and enhance this commitment. Please indicate how your expertise, knowledge, and skills have prepared you to contribute to this work with written statements addressing the following prompts:

Research statement: Please describe the focus of your research, including the questions you have identified, the funding you have received to support the work (if applicable), the results you have discovered, and the products of these efforts. Please also describe any research you have undertaken with students, with the external community, and/or with individuals from marginalized groups. Finally, please outline the research directions you foresee pursuing at Northeastern University.

Teaching statement: Please summarize your past instructional and/or mentorship experiences, your pedagogical philosophy, your plans/goals for teaching (including existing and proposed courses), and your strategies for teaching and mentoring a diverse cohort of undergraduate and graduate students.

Equity statement: Please provide an example of a time when you altered or changed your approach to research, teaching, or service because of the diversity of the group you were working with or your awareness of marginalized populations. What changes did you make? Did they have the effects that you hoped for at the time? What did you learn from this situation? How would you expect to apply what you learned from this situation as a faculty member at Northeastern University? We are interested in how you handled and learned from a past situation, not the identities of the people involved, so please only disclose what you are comfortable with.

Northeastern University is an equal opportunity employer, seeking to recruit and support a broadly diverse community of faculty and staff. Northeastern values and celebrates diversity in all its forms and strives to foster an inclusive culture built on respect that affirms inter-group relations and builds cohesion.

All qualified applicants are encouraged to apply and will receive consideration for employment without regard to race, religion, color, national origin, age, sex, sexual orientation, disability status, or any other characteristic protected by applicable law.

To learn more about Northeastern University’s commitment and support of diversity and inclusion, please see: www.northeastern.edu/diversity.