

1. How do your mission or activities relate to planetary health?

The University of New England's [mission and core values statements](#) express the institution's commitment to providing students with a learning experience that will prepare them to be engaged citizens in their local and global communities.

"The University of New England provides students with a highly integrated learning experience that promotes excellence through interdisciplinary collaboration and innovation in education, research, and service.

The University of New England values student-centered, multi-disciplinary and interdisciplinary programs that meet the highest ethical standards to achieve excellence in support of an integrative approach to the liberal arts, health and the environment, as well as scholarship and research."

This institutional commitment is reflected by programs, departments and centers across the university. For example, UNE's Center for Global Humanities and Office of Global Affairs lead the university's efforts to empower students in becoming global citizens. [The Center for Global Humanities](#) offers lectures by leading scholars from around the world to help us better understand the challenges that are besetting our civilization and outline new solutions for nations and peoples to live together without prejudice. [The Office for Global Affairs](#) is responsible for all matters related to global outreach at the University of New England, connecting students with study abroad opportunities through Global Education programs while overseeing [UNE's Tangier, Morocco campus](#). UNE students study abroad at nearly three times the national average.

The [Center for Excellence in Health Innovation](#) also offers students the opportunity to understand the interconnectivity of human and planetary health. The Center focuses on innovative learning activities and research opportunities for UNE students and faculty that are in the nexus between health care transformation, public health and education and that build the Institute of Medicine's competencies for health professionals. Programs across UNE place an emphasis on planetary health. The mission of UNE's Public Health Program is impart on students the skills necessary to understand the complexity of health issues that affect communities and identify potential solutions to address them; its curriculum includes courses that teach concepts related to planetary health including social determinants of health, the relation of health to the environment, global health, etc.

In the College of Arts and Sciences, UNE's Aquaculture and Aquarium Science also emphasizes planetary health. Aquaculture is an essential piece that must evolve as the world population continues to grow and our aquatic resources diminish and shift due to over-fishing, pollution, ocean acidification and rising water temperatures. Aquaculture has a critical role to play in food production and species conservation and we are teaching our students to be players in this industry.

These are only a few examples of how UNE lives its mission and engages in "Innovation for a Healthier Planet."

2. How would you envision contributing to the Planetary Health Alliance's goals in education, research, and/or policy?

UNE is uniquely positioned to contribute to the Planetary Health Alliance's education and research goals. Our strengths in the health and natural sciences, as well as our institutional commitment to "Innovation for a Healthier Planet," shape academic and research opportunities across the university.

With eight centers and institutes guiding research in areas from Teaching and Learning to Health Innovation, UNE's students and faculty are ready and eager to share their work with the PHA. For example, UNE's BS in Public Health could assist with the development, implementation, and evaluation of teaching materials that could be shared with the PHA network. Research in the Center for Excellence in Marine Science could inform how Aquaponics could have an impactful role in delivering fresh food to urban environments and address water scarcity concerns as it is extremely conservative in its water usage, garnering high yields from small footprints.

With 41% of UNE undergraduates engaging in research projects alongside faculty who are the forefront of their disciplines, as well as graduate students conducting research in the Colleges of Arts and Sciences, Osteopathic Medicine, Pharmacy and Westbrook College of Health Professions, UNE is eager to contribute to the research and scholarship goals central to the PHA.

3. EDUCATION: Have you implemented any of the following?

- Certificates in planetary health
- Undergraduate courses in planetary health
- Graduate courses in planetary health
- Degrees in planetary health
- Academic appointments in planetary health
- Online courses in planetary health
- Not applicable
- Other:

UNE students engage with planetary health issues across the curriculum. The core curriculum for undergraduates highlights skills and knowledge needed to engage positively in an interconnected, 21st century world. [The College of Arts and Sciences Core Curriculum](#) (Core) invites students to explore four themes from multiple disciplinary perspectives and to develop important skills. Students focus on a theme each year: Environmental Awareness (first year), Social and Global Awareness (second year), Critical Thinking (third year), and Citizenship (fourth year). Skills of communications, quantitative reasoning, and critical thinking are taught throughout the Core. Designed to provide a foundation in the liberal arts, the Core reflects the values of the college and prepares students for living informed, thoughtful, and active lives in a complex and changing society.

[The Westbrook College of Health Professions \(WCHP\) Common Curriculum](#) is designed to provide undergraduate students with the opportunity to engage in liberal arts and science course work while exploring health profession study. Elements of the College of Arts and Sciences Core Curriculum provide academic offerings in creative arts, social-global awareness, humanities exploration, and advanced studies/ human traditions course work. Study in the arts and sciences supports the development of effective communication skills, critical thinking abilities, quantitative reasoning and exploration of issues related to societal and global diversity.

UNE also offers several undergraduate programs that encourage students to dig more deeply into skills and knowledge vital to meeting planetary health challenges. Programs include majors in Environmental Science, Environmental Studies, Marine Science, Ocean Studies and Maine Affairs and Public Health, and minors in Climate Change Studies, Health, Law and Policy, and Aquaculture and Aquarium Sciences.

Undergraduate courses:

- ENV 328 - Environmental Pollution: Ecosystems, Wildlife and Human Health
- ENV 348/348L - Environment, Health, and Community Development in E. Africa w/ Lab
- MAR 316 - Science in Politics/Society
- BUEC 390 - Environmental Economics
- PUB 310- Social, Behavioral & Environmental Factors in Public Health
- PUB 300- Global Health
- SOC 335- Medical Sociology

Graduate and Professional Programs

UNE's graduate and professional programs also emphasize planetary health through course offerings and research. Master's programs in [Public Health](#) (online) and [Marine Science](#) further the inquiry into topics established in the undergraduate

curriculum. Professional programs in Dental Medicine, Osteopathic Medicine and Pharmacy emphasize the role of each discipline in meeting community health needs and goals.

[The College of Dental Medicine](#) places students in communities and settings where their service is needed most. Their experiences emphasize the development of communication skills through direct patient contact, take place in a variety of settings, and students interact with many at-risk populations (e.g., pregnant mothers, infants/toddlers/children from lower socio-economic backgrounds, special needs patients, and senior citizens who are housed in long-term care facilities). As dental students progress through the DMD curriculum, which includes courses in public health, they transition into providing more comprehensive patient care at these extramural sites.

[The College of Osteopathic Medicine's](#) Care of the Underserved Pathway (CUP) coordinates offerings in underserved care and combines them into a comprehensive pathway designed to ensure that rising physicians will provide quality care for underserved patients in Maine and beyond. CUP provides qualified and COM students interprofessional knowledge, skills and attitudes needed to care for underserved patients as well as recognizes students for their accomplishments, and encourages them to seek future positions in the care of the underserved.

[The College of Pharmacy](#) offers students the opportunity to work alongside faculty with areas of expertise including natural products chemistry, veterinary pharmacy, cancer therapies, genomics, and population molecular genetics and pharmacogenomics.

4. EDUCATION: If applicable, please expand on any of the above initiatives.

Service and practice are key components of a UNE education. This is particularly true in our health professions program, which allows students unique opportunities to serve communities in need both in the U.S. and abroad. For example, The [Cross Cultural Health Immersion to Ghana, Africa](#) integrates western health practices with folk medicine that is integral in providing culturally competent health care to all groups. Located in the twin cities of Sekondi and Takoradi, Ghana, West Africa, the program allows participants to engage in direct health services, interprofessional collaboration, community education and academic and cross-cultural exchange.

5. RESEARCH: Please enter any of your institution's recent planetary health publications. **(See Question 6)**
6. RESEARCH: Please enter any of your key planetary health research projects, including theme, scope, and location.

External funding for UNE research has grown 200% in the last eight years. In 2013, 146 faculty and staff peer-reviewed publications were cited in the Scopus database, representing a 274% increase over ten years. 200 UNE undergrads have presented at regional and national conferences in the last six years. Clearly, research is central to UNE's mission.

Research relevant to PHA's initiatives range across colleges and programs; many focus on issues that are central to planetary health. Please see the attached articles from the current issue of *Rising Tide: Scholarship and Research at the University of New England*. [For past issues of Rising Tide, please click here.](#)

7. POLICY: Please highlight any planetary health policy developments relevant to your organization.

UNE is uniquely positioned as an educational institution to contribute research, foster innovation, and provide a model for environmental sustainability to university campuses and the greater community. Teaching environmental stewardship, both by example and through living and learning experiences, ensures UNE's contribution to a cleaner, healthier environment. [UNE's sustainability efforts](#), lead by the University's Sustainability Coordinator, put knowledge into practice.

President Danielle Ripich, Ph.D. affirmed the University's dedication to environmental sustainability on November 3, 2008 when she signed the American College and University Presidents' Climate Commitment. The institutional structures, student involvement, faculty and staff guidance, campus initiatives and organizational vision signal the expansion of UNE's reputation to include leadership in environmental health and sustainability. From campus Zipcars to the growing recycling program and "green" conference offerings, UNE is embarking on new initiatives all the time to protect the environment and make the University community more aware of sustainable options.

8. Are there other institutional developments related to planetary health that you like to share?

UNE's investigation of opportunities for collaborative research and education opportunities extended to the North Atlantic and Arctic regions in 2015. Delegates from UNE attended the 2015 [Arctic Circle Assembly](#) in Reykjavik, Iceland, focusing on the question, "How could UNE bring its strengths to the region and create new, valuable opportunities for its students and faculty as they engage in innovation for a healthier planet?" Resulting initiatives include partnerships with the [University of Akureyri and Hólar University College in Iceland](#). The agreement, an expression of UNE's commitment to undergraduate and graduate education, research and economic development in the North Atlantic and Arctic regions, opens up opportunities to develop new undergraduate exchanges, travel and other courses, the development of innovative

international Masters' Degree programs and new cooperative marine research and entrepreneurship.

UNE was a founding member of the Maine North Atlantic Arctic Education Consortium in 2016. Created to harness the energy and strengths of the three Maine higher education institutions represented at the Arctic Circle Assembly in 2015- UNE, University of Southern Maine and St. Joseph's College - the consortium began work identifying areas of potential collaboration and invited other Maine institutions to join in our work. The consortium's expanded membership includes Bowdoin College, University of Maine Climate Change Institute, Bigelow Labs, Maine Maritime Academy and Bates College. Work continues to identify potential collaborations that will extend and expand learning and research opportunities that support the sustainable development of resources and systems in Maine, the North Atlantic, and Arctic.

9. Where does your organization need support from the planetary health community or aim to learn from others?

While UNE students benefit from exposure to planetary health concerns throughout our curriculum, UNE is eager to learn more about how planetary health frameworks may be applied in our undergraduate and graduate programs. All UNE learners can benefit from dialogue and exchange with other institutions as we prepare them to be citizens in an increasingly dynamic and complex 21st century environment. UNE is committed to educating problem-solvers and expanding our institutional knowledge of the issues at play and the best practices in the field can only help in that effort. In addition, expanding our opportunities for collaborative research at the undergraduate, graduate and faculty levels is a clear goal of our PHA membership. Finally, learning more about how institutions are establishing internal policies relevant to planetary health and contributing to policy making via research and scholarship would help UNE continue its efforts to not only educate planetary health problem solvers, but to be part of the solution through its own actions.