

Graduate student opportunities in dissolved gas biogeochemistry and chemical oceanography

Principal investigator: Dr. Cara Manning, University of Connecticut Department of Marine Sciences

Research opportunity: [Dr. Cara Manning's research group](#) at the University of Connecticut Department of Marine Sciences (UConn) seeks applicants for a fully funded MS or PhD position in chemical oceanography/aquatic biogeochemistry, to begin in fall 2022.

The graduate student will play a key role in establishing a new laboratory focused on using measurements of dissolved gases (e.g., O₂, N₂, greenhouse gases, and noble gases) and other biogeochemical tracers to conduct research on topics ranging from marine productivity, to Arctic climate change, to the environmental impacts of nutrient pollution and resource development.

Available research projects include, but are not limited to:

- 1) quantifying net community production in Long Island Sound using continuous and discrete measurements of gas tracers (O₂, N₂, Ar, and N₂O), and quantifying gross primary production using ¹⁸O tracer incubations
- 2) developing high-throughput methods for measuring dissolved noble gases and N₂, and applying them to improve estimates of denitrification rates in coastal waters and sediments, as well as comparing the results with incubation-based methods

Students in the group will have the opportunity to develop and/or enhance skills in:

- analytical biogeochemistry and method development related to the measurement of dissolved gases
- development and use of software for instrument control, data acquisition, and data visualization
- computational biogeochemistry, including data analysis and quality control, and the use of external data products (e.g., meteorological data, remotely sensed parameters, and reanalysis data products)

Students will receive a stipend of at least \$33,000/year throughout their degrees, a full tuition waiver, and access to low-cost comprehensive medical and dental insurance (currently ~\$200/year).

Department and campus: The [University of Connecticut Department of Marine Sciences](#) is located on the Avery Point campus in Groton, adjacent to Long Island Sound. The graduate program in Marine Sciences offers the intimacy and support of a small campus, coupled with the resources of a large, research-intensive public university.

Application procedure: Applications should be sent to the [UConn graduate school](#) by January 10 for fall 2022 admission. Required materials include official transcripts, three letters of recommendation, and a personal statement describing your research interests, relevant training, and career goals. A CV or resume is optional and very helpful. International students whose native language is not English must submit evidence of English language proficiency. GRE scores are not required nor considered.

Interested students are encouraged to contact Dr. Manning by email (cara.manning@uconn.edu) with the subject line "Prospective graduate student" prior to submitting their formal application and should provide:

- a cover letter describing their research interests and how they relate to the proposed projects or other topics within the scope of the lab's research, as well as their motivation for pursuing a graduate degree at the UConn Department of Marine Sciences
 - a CV or resume outlining their academic and work experience
 - unofficial transcripts (or a list of courses completed and in progress, as well as grades)
- Dr. Manning will respond to applicants who may be a good fit to set up a video call.

Equity, diversity and inclusion: We are committed to fostering an equitable, diverse, and inclusive research environment. We encourage applications from members of groups that have been underrepresented in and/or historically excluded from geosciences research. All members of Dr. Manning's group are expected to spend time educating themselves on best practices in building equitable, diverse, and inclusive research groups, departments, and classrooms, and playing an active role in implementing these practices.

All opportunities with Dr. Manning's group will be posted at <https://www.caramanning.com/join>.