

## Graduate student positions – trace metal biogeochemistry – Texas A&M Oceanography

The [Fitzsimmons Lab](#) in trace metal biogeochemistry in the [Department of Oceanography](#) at [Texas A&M University](#) seeks creative and motivated graduate students at the Masters and/or PhD level to join the lab in Fall 2015. Our research explores the distribution, physicochemical state, and isotope ratios of trace metals in seawater in order to better understand the cycling and biological usage of essential micronutrient metals in the oceans. We are a sea-going group, collecting our samples on research cruises and then analyzing them back in the laboratory. Our primary analytical tool is inductively coupled plasma mass spectrometry (ICP-MS), which is housed in the Williams Radiogenic Laboratory in the College of Geosciences.

Potential research topics include (but are not limited to) 1) processes controlling distributions of dissolved, colloidal, and particulate metals in the ocean; 2) the development of innovative methods to explore the physicochemical speciation of iron in marine and coastal waters; and 3) the measurement of micronutrient metal stable isotope ratios to gain knowledge of the source and/or processes modulating metal distributions in the oceans. Potential study locations include the Arctic Ocean (US [GEOTRACES](#)), the West Antarctic Peninsula ([Palmer LTER program](#)), the Southeast Pacific Ocean, coastal California and Maine, and the Gulf of Mexico. Opportunities for participation in oceanographic cruises will be available and encouraged.

Students should have a strong background in one or more of the following disciplines: chemistry, biogeochemistry, oceanography, and/or earth science. Strong chemistry skills, excellent written and oral communication in English, and most importantly enthusiasm are required. Experience on oceanographic research cruises, in clean labs, and/or with ICP-MS is desirable.

### **\*\*Application process\*\***

Interested and qualified candidates should send an email describing their motivation and research interests along with a CV to Dr. Jessica Fitzsimmons <jessfitzsimmons@gmail.com>. [Formal graduate applications to Texas A&M Oceanography](#) are due January 1st. Financial support for graduate students is available from research assistantships, teaching assistantships, and university fellowships, and application to outside funding sources is also encouraged.

### **\*About Texas A&M Oceanography\***

Texas A&M University is a top-100 university located in College Station, TX, between the metropolitan cities of Austin and Houston, TX. It is a land-, sea-, and space-grant university with a dynamic and international community of 172,000 people situated on 5200 acres of land. Oceanography graduate faculty are housed primarily in College Station, with associated scientists and graduate students also on the Galveston campus. The more than 30 faculty and 60 graduate students in Oceanography sail across the world to learn more about the ocean's physical, geological, chemical and biological properties. The academic curriculum emphasizes an interdisciplinary approach to discovering the connection between the oceans' past, present, and future. Research ranges from monitoring the hypoxic levels and algal blooms of the Texas Gulf Coast to the understanding the influence of climate change on the fragile ecosystems of the Arctic and Antarctic. The department also maintains close ties with the Geochemical and Environmental Research Group ([GERG](#)), which is an applied research group that serves to link academic education and research to the real-world needs of government and industry. GERG expertise includes buoy design, fabrication, deployment, ocean monitoring and modeling, as well as environmental contaminant assessments of soil, water, air and organisms. The Oceanography department also works closely with the rest of the Texas A&M [School of Geosciences](#), which includes the Departments of Atmospheric Sciences, Geology and Geophysics, and Geography, the Berg-Hughes Center for Petroleum Sedimentary Systems, the Integrated Ocean Discovery Program (IODP), and Texas Sea Grant. Altogether this School includes >100 research faculty, >200 research and administrative staff, and >350 graduate students.