

Carbon Marine Analytical Chemist (Australian Antarctic Program Partnership)

College/Division College of Sciences and Engineering

School/Section Institute for Marine and Antarctic Studies

Location Salamanca

Classification HEO 5

Reporting line Reports to Program Leader Australian Antarctic Program Partnership

Position Summary

The University of Tasmania is building a vision of a place-based University with a mission to enhance the intellectual, economic, social and culture future of Tasmania, and from Tasmania, contribute to the world in areas of distinctive advantage. The University recognises that achieving this vision is dependent on the people we employ as well as creating a people-centred University that is values-based, relational, diverse, and development-focused.

We are seeking to appoint a Carbon Marine Analytical Chemist in the <u>Institute for Marine and Antarctic</u> Studies as part of the College of Sciences and Engineering.

The Carbon Marine Analytical Chemist will contribute to the Australian Antarctic Program Partnership (AAPP), a major research program funded through the Antarctic Science Collaboration Initiative of the Department of Industry, Science, and Resources (DISR). The AAPP brings together government and non-government organisations to deliver and lead a significant part of the national Antarctic science program. The partnership is led by the University of Tasmania (UTAS), and includes the Australian Antarctic Division (AAD), CSIRO Oceans and Atmosphere, Geoscience Australia, the Bureau of Meteorology (BoM), the Tasmanian State Government and Australia's Integrated Marine Observing System (IMOS).

The AAPP will carry out research to understand the role of the Antarctic region in the global climate system and the implications for marine ecosystems, by enabling collaborative research aligned with the Australian Antarctic Strategy and 20 Year Action Plan.

The Carbon Marine Analytical Chemist will be a member of Theme 2: The Nature and Impacts of Southern Ocean Change – and will support at-sea biogeochemical sensor calibration, sample analysis, data synthesis and quality control.

The position requires the preparation of specialist marine sampling gear for field programs to exacting standards of cleanliness, participation in marine voyages, sample processing and distribution. Documentation and analysis of the collected samples for chemical content; detailed QC of the results and assembly of data for common distribution via the AODN; preparation of safety instructions, technical reports and contributions towards peer-reviewed scientific papers.

The successful candidate will be a self-motivated individual, capable of effective independent work under the broad guidance of senior researchers.

We are an inclusive workplace committed to 'working from the strength that diversity brings' reflected in our Statement of Values. We are dedicated to attracting, retaining and developing our people and are committed to inclusive principles. We celebrate the range of diverse assets that gender identity, ethnicity, sexual orientation, disability, age and life course bring. Applications are encouraged from all sectors of the community. Tell us how we can make this job work for you.



- Provide chemical analytical and marine technical support for science programs:
 - Preparation of large equipment for chemically clean marine sampling of dissolved and particulate material (e.g., rosettes, in situ pumps, sediment traps, autonomous samplers, and associated gear). This task includes testing/modification of new equipment, basic programming and electronics;
 - Assist with the design and troubleshooting of deployment options for marine sampling and sensor equipment on different research vessels and platforms, including liaising with support personnel from the Australian Antarctic Division, and CSIRO;
 - Participation in marine science field programs;
 - Analysis of major nutrients in seawater and sediment samples collected during research expeditions. This task requires knowledge of analytical equipment such as automated sample preparation systems, spectroscopic, coulometric, and elemental analysers and the sample handling requirements e.g. bottle preparation.
 - Day-to-day laboratory support of the marine biogeochemistry research group, including general laboratory organisation, liaison with lab managers and property services for the maintenance of fume cupboards, flow benches, pure water system, sample filtration and digestion equipment, coulometers, etc, ordering and administrative tasks; and
 - Maintain a clear and up to date database of samples and analytical results (including for quarantine purposes) and issue technical reports on these samples and results in formats useful to other scientists.
- Assist with the training of research students and other technical staff, including providing safe work instructions and risk assessments within the HSE framework, written protocols for research students and other technical staff as needed.
- Contribute to research project outcomes:
 - Participate in collaboration and communication activities with research users and other scientists; and
 - Provide research updates, including technical summaries, to partners and enterprises.
- Undertake other duties as assigned by the AAPP Program Leader.

What We're Looking For (success criteria)

- A degree in a relevant field of chemistry, environmental science, oceanography, geochemistry, or similar.
- Experience in performing sample collection, sampling processing and chemical analyses, including in remote environments (e.g., from oceanographic vessels and/or in polar regions) to high and exacting international standards in an efficient and productive manner.
- Knowledge of the development and use of state-of-the-art analytical equipment for marine chemistry.
- Experience with major nutrient handling and processing protocols, and analyses.
- Demonstrated ability to prepare sample databases, technical reports and quality control documents, including information suitable for posting to global databases on the Internet.
- Skills in programming (e.g., Matlab, LabVIEW, netCDF, Python).

Other position requirements

Visiting and working in the field in remote locations - Because the successful applicant may be expected to work at sea, applicants for this position will be required to be certified as fit for Antarctic Service by the Australian Antarctic Division's Polar Medicine Branch or the Marine National Facility (and/or medical officers representing other research vessels) after tests conducted by or on behalf of a Commonwealth Medical Officer or other medical authority.

University of Tasmania

The University of Tasmania is an institution with an enduring commitment to our state and community, and a strong global outlook. We are committed to enhancing the intellectual, economic, social and cultural future of Tasmania. Our Strategic Direction strongly reflects the University community's voice that our



University must be place based but globally connected as well as regionally networked and designed to deliver quality access to higher education for the whole State.

We believe that from our unique position here in Tasmania we can impact the world through the contributions of our staff, students and graduates. We recognise that achieving this vision is dependent on the people we employ, as well as creating a university that is values-based, relational, diverse, and development-focused.

Check out more here:

https://www.utas.edu.au/jobs

https://www.utas.edu.au/careers/our-people-values-and-behaviours

The intention of this position description is to highlight the most important aspects, rather than to limit the scope or accountabilities of this role. Duties above may be altered in accordance with the changing requirements of the position.

