



POSITION DESCRIPTION

Position Title:	Scientific Officer/Senior Scientific Officer
Organisation Unit:	Advanced Water Management Centre
Position Number:	NEW
Type of Employment:	Fixed Term, Full Time for 12 months initially with possible extensions based on performance and funding availability
Classification:	HEW Level 4 or 5

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver **knowledge leadership for a better world**.

UQ ranks in the world's top universities, as measured by several key independent ranking, including the Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (52), QS World University Rankings (47), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (60). UQ again topped the nation in the prestigious Nature Index and our Life Sciences subject field ranking in the Academic Ranking of World Universities was the highest in Australia at 20.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland's highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia's Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 50,000-plus strong student community includes more than 13,000 postgraduate scholars and more than 12,000 international students from 144 countries, adding to its proud 240,000-plus alumni. The University has about 7,000 academic and professional staff and a \$1.8 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of \$11billion+ (see <http://uniquest.com.au/our-track-record>).

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

Organisational Environment

The Advanced Water Management Centre (AWMC) is an internationally recognised centre of excellence in innovative water technology and management. The Centre has an outstanding worldwide reputation in urban water management and related fields, and an award winning multidisciplinary team delivers practical technological solutions underpinned by fundamental scientific discoveries.

The Centre has six interlinked programs namely, next generation urban water technologies, integrated urban water management, sewer corrosion and odour management, nexus of urban water, health and environment, resource efficient agri-industry and environmental biotechnology.

Collaborative linkages with industry are strong and solutions developed by the Centre have yielded quantifiable benefits in the order of hundreds of millions of dollars to the Australian water industry and other sectors. At the same time, the AWMC has an outstanding academic publication record, publishing on average more than 100 papers a year in high quality journals including the most prestigious multidisciplinary journals including Nature and Science, and top discipline journals such as Water Research and Environmental Science and Technologies.

The Centre has well-established process, microbiology and analytical labs. The direct collaboration with industry partners has also led to the creation of several field facilities including the Innovation Centre at Queensland Urban Utilities' Luggage Point Sewage Treatment Plant, supporting technology demonstration at larger scales and under practical conditions.

The Centre recognises and values equity and diversity, and encourages applications from any individual who meets the requirements of this position irrespective of gender, sexuality, race, ethnicity, religion, disability, age or other protected attributes. The Centre strives to provide an inclusive working environment, and along with the University is committed to supporting staff with family and caring responsibilities by providing policies, programs and initiatives to help balance work and family responsibilities.

An important part of our research centre is the Analytical Services Laboratory (ASL), which provides a wide range of analytical methods, instrumentation and services for our research activities. Analytical equipment present in the ASL includes GC-FID, GC-ECD/ECD, GC-FID/ECD, GC-MS, TD/GC/MS/pFPD, HPLCs, LC-MS/MS, TOC/TN, IC, ICP-OES, FIA plus other instruments. The main activities are focused on various water sample analyses, including nutrients, sulfur compounds, volatile fatty acids, sugars, alcohols, volatile organic compounds as well as micropollutants (pharmaceuticals, personal care products etc.). Samples are generated from a large diversity of research activities ranging from concentrated sludge treatment processes to high-purity water recycling. Sample collection and preparation are undertaken by the relevant researchers at the Centre with the help of the ASL staff, while most instrument analyses are performed by professional staff at the ASL, increasingly also with involvement of researchers themselves.

Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - <http://www.uq.edu.au/current-staff/working-at-uq>

DUTY STATEMENT

Primary Purpose of Position

This Scientific Officer position will provide technical-scientific support for our analytical services at the ASL, including operation of various analytical instruments, data analysis and quality control.

Duties

For Appointment at HEW 4

Duties and responsibilities include, but are not limited to:

- Prepare samples for analyses (e.g. sample digestions for TKN/P and ICP-OES analyses, dilutions, centrifugation, filtration);
- Assist with routine Lab tasks (e.g. washing of glassware, changing of gas cylinders, checking and ordering of consumables, waste disposal);
- Prepare reagents and solutions;
- Assist with operation of analytical and other scientific equipment (e.g. running of Flow injection analyser, VFA analyses on GC-FID);
- Assist with regular quality control and assurance tests on scientific equipment (e.g. balances, pipettes, dispensers);
- Assist in updating and maintaining standard operating procedures and manuals for analytical and laboratory equipment;
- Any other duties as reasonably directed by your supervisor.

For Appointment at HEW 5

Duties as listed above, in addition to the following:

- Undertake regular quality control and assurance tasks on scientific equipment and analytical instruments (e.g. balances, pipettes, dispensers etc.);
- Provide scientific advice to staff and students relating to sampling, sample preparation and preservation, and potential analytical problems;
- Operate analytical instruments
- Contribute to and assist in updating and maintaining standard operating procedures and manuals for analytical and laboratory equipment.

Other

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:

- the [University's Code of Conduct](#)
- requirements of the Queensland occupational health and safety (OH&S) legislation and related [OH&S responsibilities and procedures](#) developed by the University or Institute/School
- the adoption of sustainable practices in all work activities and compliance with associated legislation and related University [sustainability responsibilities and procedures](#)
- requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related [responsibilities and procedures](#) developed by the University

Organisational Relationships

The position reports to the AWMC Laboratory Manager.

SELECTION CRITERIA

Essential

- A Diploma or Certificate IV in Science, Chemistry or related disciplines or an equivalent combination of relevant experience and/or education/training;
- Basic knowledge and understanding of analytical chemistry particularly related to environmental and water analyses;
- Basic knowledge and practical application skills of good laboratory practices;
- Experience with laboratory equipment;
- Experience with basic data analysis;
- Good computer skills in Microsoft Word, Excel and Outlook;
- Excellent interpersonal skills to work effectively with team members from different backgrounds and with different tasks;
- Strong focus on accurate, high quality scientific work practices, including data analysis;
- Demonstrated ability to work under supervision;
- Good communication and time management skills and the ability to meet objectives within set deadlines.

Desirable

- Knowledge in analytical chemistry;
- Experience with maintaining OH&S policies and procedures.

For Appointment at HEW 5

As above, in addition to the following:

Essential

- A degree in Science, Chemistry or related disciplines, or an equivalent combination of relevant experience and/or education/training;
- Knowledge and understanding of analytical chemistry particularly related to environmental and water analyses;
- Good working knowledge of analytical equipment such as GC, HPLC, IC, TOC, FIA, ICP-OES or similar instruments;
- Knowledge and practical application skills of good laboratory practices, including quality control and assurance procedures;
- Ability to operate, maintain analytical equipment to achieve reliable, high-quality analytical results;
- Experience with data analysis and critical assessment from analytical procedures;
- Proficient in Microsoft Word, Excel and Outlook;
- Demonstrated ability to work independently and with limited supervision;

Desirable

- Experience with maintaining OH&S policies and procedures;
- Experience with scientific and/or engineering research work particularly related to water/environmental field and/or analytical chemistry.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University's Diversity and Inclusion webpage (<http://www.uq.edu.au/equity>) for further information and points of contact if you require additional support.

This role is a full-time position; however flexible working arrangements may be negotiated.

Accessibility requirements and/or adjustments can be directed to the contact person listed in the job advertisement.