UNSW SYDNEY

Make it matter.

POSITION DESCRIPTION

Technical Officer/Senior Technical Officer

Position Level	6/7
Faculty/Division	Engineering
Position Number	00047609
Original document creation	April 2024

Position Summary

The Technical Officer / Senior Technical Officer contributes to the output of the School through the development, maintenance, and efficient day-to-day management of teaching and research equipment, infrastructure, and services in the School of Civil and Environmental Engineering Laboratories, particularly PC1/PC2 classified biochemical laboratories within the Water Quality Laboratories (WQLs) at both Kensington and Manly Vales campus. The Technical Officer / Senior Technical Officer will identify research and teaching requirements, facilitate the commissioning and maintenance of specialised equipment, and manage user access and training across these two campuses.

The Technical Officer / Senior Technical Officer plays an active role in compliance with WHS requirements, initiating and managing WHS activities and developing and implementing policies and procedures in collaboration with the HSE Advisor and Laboratory Manager.

The role of Technical Officer / Senior Technical Officer reports to the Laboratory Manager and has nil direct reports.

Accountabilities

Specific accountabilities for this role include:

LEVEL 6 (Technical Officer)

- Assist with the operation, maintenance, benchmarking, troubleshooting and repair works on a wide range of analytical instruments and infrastructure in the WQL teaching and research laboratories, particularly PC1/PC2 certified biochemical laboratories.

- Provide technical support and assistance to research and academic staff and high-degree research students for the sourcing and acquisition of suitable raw materials and laboratory equipment specific to teaching and / or research needs.
- Assist the high-degree research students, postdoctoral researchers and research engineers with the acquisition and handling of biological materials and hazardous chemicals in the designated PC1/PC2 certified biochemical laboratories which require the approval of SafeWork NSW
- Review and provide recommendations for continuous improvement of laboratory facilities and safety culture.
- Ensure up-to-date knowledge of new technology and equipment available to be able to provide advice to academic staff for teaching and research purposes.
- Oversee the safe purchase, storage and disposal of chemicals and biochemical materials within designated laboratories. This includes m/aintaining a working knowledge of Safety Data Sheets and basic chemical handling.
- Support the laboratory manager or School's directions in implementing and maintaining the instrumentation testing accreditation or laboratory-related management systems (e.g. NATA accreditation and/or ISO Management System Standards).
- Work collectively with the technical team across the School to contribute to a culture of continuous improvement, evaluating existing equipment, infrastructure, service delivery and training, as well as systems, procedures and protocols, to identify opportunities for improvement and implement change as approved by the Laboratory Manager.
- Proactively encourage the sharing of knowledge and experiences and interact with staff of varying backgrounds and experiences to establish productive and working relationships.
- Implement and maintain safety systems within the laboratory environment to comply with University and statutory policies, guidelines and procedures in collaboration with the HSE Advisor and Faculty WHS Coordinator.
- Undertake other relevant duties in the School as directed by the Laboratory Manager consistent with the level of the position. Cover the duties of other technical officer team member as directed by the Technical Manager if needed
- Align with and actively demonstrate the UNSW Values in Action: Our Behaviours and the UNSW Code of Conduct.
- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

Level 7 Senior Technical Officer (in addition to the above)

- Act with a higher degree of independence in the provision of support and advice to the users of the laboratories.
- Contribute to the development and implementation of the school level health and safety policies and procedures within the WQLs.
- Document all repair and project work with reports, updates to manuals and related documents as necessary.
- Independently manage the efficient day-to-day laboratory operations in designated laboratories including biological, chemical and analytical laboratories; authorising access to laboratories and equipment; coordinating, conducting and evaluating user training; and general user oversight of

the laboratories, including for the complex installation, maintenance, repairs, calibration, troubleshooting of School equipment and infrastructure.

- Participate as a member of the School's Health and Safety Environment Committee and Technical and Computing Support Services Committee in the absence of the Technical Manager if needed.
- Provide support for students and staff to analyse and identify requirements for the design and construction of apparatus, devices, and models which may be for individual projects, class demonstrations or experiments.
- Apply substantial theoretical and technical knowledge and practical experience to develop, test and refine systems and procedures to support the research projects and ensure that they comply with the regulatory requirements.
- Use specialised expertise and knowledge in focused biochemical and microbiological areas to provide high-level technical support for teaching and research across the School and University.
- Manage allocated budget for general consumables and advise on costs for any relevant spending out of research funds. May need to liaise with equipment manufacturers and suppliers of consumables.
- Consult with Academic staff members and the Technical team to establish priorities and develop business cases to bid for unallocated funds from the School budget.

Skills and Experience

Level 6

- A relevant qualification in Biological or Biochemical Science/Engineering Degrees with subsequent practical experience and/or an equivalent level of knowledge gained through any other combination of education, training or experience.
- Experience working in biochemical areas in the laboratory or research context.
- Demonstrated knowledge and understanding of associated Work Health and Safety Principles and requirements for working in a PC1/PC2 biochemical laboratory environment with experience in supporting cell culture activities (Preferable)
- Proficient computing skills including word processing, spreadsheets and databases.
- Attention to detail with the ability to conduct tests, take measurements and maintain records clearly and accurately.
- Knowledge of hazardous materials and dangerous goods (HMDG) and their safe management.
- Experience in identifying hazards, developing risk assessments and standard operating procedures for new equipment and implementing hazard controls.
- A strong technical aptitude with the ability to operate, maintain, calibrate, troubleshoot and repair a wide range of testing equipment with demonstrated success.
- Demonstrated capacity to document and maintain procedural information and contribute to procedural improvements.
- Demonstrated experience implementing safety systems and initiatives, including training students and/or staff in safe working practices in a complex laboratory environment.
- Excellent communication and stakeholder engagement skills with a focus on understanding business requirements and being able to translate this into technical concepts and written technical documentation.

- Capability to manage purchasing of chemicals, equipment and other materials in compliance with statutory and University requirements.
- Demonstrated ability to manage competing deadlines and the demonstrated ability to work both independently and as part of a wider technical team for the benefit of the School.
- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

Level 7 (in addition to the above)

- Extensive experience managing complex laboratory or workshop equipment used in PC1/PC2 certified biochemical laboratories.
- Knowledge and experience in at least one or more of the following areas: Mechatronic Engineering, Process engineering, Environmental engineering, Water engineering, and Wastewater engineering.
- Understanding and/or knowledge of general laboratory good practices, QA/QC criteria and accreditation procedures (NATA accreditation).
- Knowledge and experience in implementing and/or auditing the Laboratory Management System (ISO standards).
- Experience in leading the implementation of the laboratory testing accreditation and/or laboratory management systems in the designated laboratories.
- Demonstrated experience in managing budgets, purchasing and assets or design/implementation of systems for teaching laboratories or research groups or equivalent.
- High-level analytical and problem-solving skills, with a demonstrated ability to investigate and make informed decisions regarding complex issues.
- Demonstrated success working effectively and collaboratively on initiatives with a range of people at different levels within an organisation.
- Experience driving a culture of continuous improvement, providing recommendations for new methodologies and solutions to improve laboratory systems and procedures.
- Proven experience developing and implementing safety systems in a laboratory context.

PROGRESSION STATEMENT

The incumbent will normally be expected to have reached the top step of level 6 prior to progression to level 7. Criteria for progression to level 7 will be based on satisfactory performance of all duties and accountabilities at level 6 and a demonstrated capacity to take on the duties and accountabilities of the position at level 7.

About this document

This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role