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 (65). 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.

POSITION DESCRIPTION

Position Title: Senior Professional Officer in Photolithography, Soft Lithography, Clean Room Operation, Microfluidic Device Design, Fabrication and Testing.

Organisation Unit: Australian Institute for Bioengineering and Nanotechnology

Position Number: 3023505

Type of Employment: Full time, fixed term (Parental Leave Replacement)

Classification: Hew Level 8
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 University of Queensland's Australian Institute for Bioengineering and Nanotechnology (AIBN) is a dynamic multi-disciplinary research institute dedicated to developing technology to alleviate societal problems in the areas of health, energy, manufacturing and environmental sustainability. AIBN brings together the skills of more than 450 world-class researchers complimented by an extensive suite of integrated facilities, working at the intersection of biology, chemistry, engineering and computer modelling. With a reputation for delivering translational science, AIBN conducts research at the forefront of emerging technologies, and has developed strong collaborations with leading members of industry, academia and government. AIBN goes beyond basic research to develop the growth of innovative industries for the benefit of the Queensland and Australian economies. Information about the Institute can be accessed on the Institute’s web site at http://www.aibn.uq.edu.au/.

AIBN is committed to supporting the career growth of female researchers and have a number of initiatives to support females in developing and achieving a fulfilling research career at the institute. For more information, please visit our AIBN Women in Science web site at http://www.aibn.uq.edu.au/women.

The Australian National Fabrication Facility is a major multi-node initiative funded by the Australian Federal Government through its National Collaborative Research Infrastructure Strategy to provide nano and micro fabrication facilities for Australia’s researchers. The node is co-located at the Australian Institute for Bioengineering and Nanotechnology (AIBN) and the Centre for Organic Photonics and Electronics (COPE).

The Queensland node provides facilities and expertise in the area of Soft and Bio-nano materials synthesis, processing, characterisation and device fabrication. Key foci include photoresists, organic optoelectronic devices, new drug delivery systems, microfluidics and patterning technologies.

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

Provide high-level operational, scientific and technical service support in the fields of Photolithography, Soft Lithography, Clean Room Operation and Microfluidic Device Design, Fabrication and Testing to scientists accessing equipment within the NCRIS Australian National Fabrication Facility – Queensland Node.
Duties

Duties and responsibilities include, but are not limited to:

**Technical and Scientific**

- Manage, maintain and operate a range of advanced micro/nano-fabrication and testing equipment including: Nanoscribe, Mask Aligners, Hot Embosser, Direct Laser Mask Writer, Nanoimprint Lithography, Profilometer, Wet bench and dryers, HMDS Oven, microscopes and plasma cleaner. This will include operating them to the full extent of the equipment capability and to allow research at the cutting edge of technology
- Manage and maintain a class 10000 and class 1000 clean room
- Provide high level advice and expertise to researchers and clients with respect to the capabilities and potential for further research utilising the equipment
- Provide training in designing and testing of devices by utilising such software programs as Solidworks, L-Edit and Conventorware.

**Administrative and Organisational**

- Organise and administer access to NCRIS ANFFQ equipment located in the AIBN, including: provide training and certifying new users; track equipment usage and user access; organise user feedback; notify the Facility Manager of usage of ANFFQ facilities
- Train users on a full range of techniques for all equipment to enable expanded research possibilities and to enable users to utilise the full potential of the equipment’s capabilities
- Keep up to date with new advances in techniques and research by literature searching, and other relevant sources of information
- Ensure correct OH&S procedures are maintained for NCRIS ANFFQ users

**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 ANFF Qld Node Facility Manager.
SELECTION CRITERIA

**Essential**

- Postgraduate qualifications or extensive relevant experience in the area of material science, chemistry, physics, engineering or similar; or an equivalent combination of relevant experience and/or education/training
- Demonstrated expert knowledge of Microfluidic device design, fabrication and testing
- Demonstrated expert knowledge in the area of micro/nano device fabrication and characterisation
- Demonstrated expert knowledge in Hot Embossing and NanoImprint Lithography
- Evidence of extensive experience in the area of micro- and nano-fabrication and characterisation, photolithography techniques, microfluidics, hot embossing and clean room operation to class 1000.
- Evidence of a contribution to research relating to essential knowledge and skills listed above
- High level communication and inter-personal skills, with a high degree of professionalism essential for dealing with external clients
- Evidence of ability to train others in scientific techniques
- Excellent organisational and problem solving skills
- Responsible approach to equipment use and maintenance
- Ability to learn new skills and use new technologies
- Excellent time management skills and demonstrated ability to work within deadlines
- Ability to keep detailed records and author technical reports

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](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.