POSITION DESCRIPTION

Position Title: Lecturer/Senior Lecturer in Quantitative Biology
Organisation Unit: School of Biological Sciences
Position Number:
Type of Employment: Full-time, continuing
Classification: Level B/C

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 (PhD and Masters) 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 $11 billion+ (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 **School of Biological Sciences** is part of the Faculty of Science and is recognised as one of the most successful Biology Schools (departments) in Australia, with 43 full-time academic staff, > 40 post-doctoral researchers, and over 200 enrolled PhD students. The School has broad expertise across ecology and evolution, molecular and quantitative genetics, paleobiology, developmental biology, plant and animal physiology, and conservation biology. Our research programs involve a diverse array of taxa, ranging across microorganisms, animals and plants. Special opportunities for biological research and teaching are provided by our proximity to a stunning array of marine and terrestrial subtropical systems. Research programs in the School take advantage of model and non-model organisms and many include a strong quantitative and modelling focus.

The School of Biological Sciences strives for an equitable, inclusive and family-friendly working environment. The leadership of our School is committed to supporting academic staff before, during and following parental and other carers leave, and aims to provide an academic environment that is understanding of a reasonable work-life balance.

Further information and details of the research interests of academic staff may be accessed on the school's web site at http://www.biology.uq.edu.au

**Master of Quantitative Biology**

Quantitative Biology is a major strength in the School of Biological Sciences, and underpins our ability to manage and organise complex data sets, perform complex statistical analyses, model natural processes, and create testable theories across multiple biological fields including ecology, genetics, evolution and conservation. In 2020 the School will launch a new and flexibly-structured Master by Coursework program in Quantitative Biology. The program will have a strong emphasis on acquiring core quantitative skills in a variety of topics ranging from data management to machine learning techniques, advanced statistical analyses, and mathematical modelling. Students will then apply those skills through opportunities to consult with academic, industry, and government teams, providing solutions to their real world in-demand problems.

**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

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.
DUTY STATEMENT

Primary Purpose of Position

You are expected to participate as a core member of the School of Biological Sciences as a teaching and research academic staff member, engage in high quality undergraduate and postgraduate teaching, postgraduate supervision, as well as maintain a productive research program supported through external research funding (including government and non-government sources where appropriate), and contribute to various administrative and outreach activities associated with the School. Though specific teaching and service duties may vary over time, you will take a collaborative leadership role in the final development and successful roll-out of the School’s new Master-by-coursework program in Quantitative Biology, with initial teaching responsibilities focused on relevant core courses in that program. In filling leadership roles in this Masters program, you will also lead efforts to promote and grow this program once established.

Duties

Duties and responsibilities include, but are not limited to:

Teaching and Learning

Level B and C

- Teach undergraduate and postgraduate courses in the School’s teaching programs
- Coordinate and provide leadership in the development of course material in the Master of Quantitative Biology and potentially other courses in the future
- Coordinate and lecture into individual courses as needed and appropriate to expertise
- Supervise honours and postgraduate (Master and PhD) students
- Contribute to efforts to develop course materials across the School of Biological Sciences that use flexible and non-lecture-based delivery modes as appropriate
- Act as an active, constructive and collaborative team member in the School of Biological Sciences teaching programs

Level C

- Continually develop the curriculum, teaching resource and approaches to improve the quality of courses.
- Successfully coordinate significant strategic elements of our School-wide plan to expand training in the use of quantitative skills for the study of an applications of ecology, evolutionary biology, genetics and conservation biology.

Research
Level B and C

- Develop an independent research program based on competitive external funding
- Where possible, seek funding through non-traditional funding sources such as contract research, industry collaboration and philanthropic funds as well as government funding bodies
- Conduct research and produce high quality peer-reviewed scholarly papers
- Work with colleagues and postgraduate students in the School of Biological Sciences and across the Faculty of Science and UQ in the development of research projects, publications and grant proposals

Level C

- Lead an independent research program that includes undergraduate and postgraduate students
- Develop, lead and manage substantial externally-funded research projects
- Develop a research profile of international standing that contributes to the School’s strategic research strengths.

Service and Engagement

Level B and C

- Contribute to the administrative functions in the School through committee membership and participation in occasional school events and activities
- Foster the School’s relations and reputation with academics around the University of Queensland and with various industry partners, government departments, professional bodies and the wider community
- Any other duties as reasonably directed and negotiated with the Head of School

Level C

- Effectively perform higher level service duties for the School and University
- Make substantial contributions to external professional bodies in a leadership capacity, such as (but not limited to) journal editorial duties, peer review, review for appropriate competitive grant schemes and/or take a leadership role in philanthropic activities, community outreach or other outward facing engagement activities.
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 Head of School of Biological Sciences and be based at the St. Lucia campus.

SELECTION CRITERIA

- PhD in a relevant area of research such as (but not limited to): ecology, evolutionary biology, genetics, or applied mathematics (including statistics – with a biological focus)
- Postdoctoral experience in a relevant field of biology
- Demonstrated expertise using statistical techniques and/or modelling of biological data and systems, with specific experience working with the R programming language and knowledge of a range of commonly used quantitative biology packages and languages such as Matlab, Perl, Java or Python.
- Experience setting up and working with High Performance Computing systems will be looked on favourably, but is not essential (please comment on this in your application only if you do have this experience)
- Some experience teaching (can be as a tutor or TA) quantitative skills in a biological context at undergraduate or postgraduate level
- Evidence of a developing independent research program. Evidence should include, but is not limited to, a strong record of peer-reviewed publications, with extensive first authored publications. (We will look favourably on experience gaining competitive research funding and with public outreach and/or liaising and collaborating with non-university agencies/partners but such experience is not essential.)

Additional selection criteria for Level C
• Evidence of an established independent research program. Evidence should include, but is not limited to, a strong record of peer-reviewed publication including substantial publications as senior (last) author.

• Evidence of independent research funding awarded to the applicant as lead or chief investigator.

• Experience coordinating and developing teaching materials for undergraduate courses in biology (as primary teaching staff, not as a tutor or TA)

• Experience in some university service role, such as active participation in a school/department level committee, community outreach, or non-teaching student engagement activities.

Seminar

A short list of applicants will be invited to visit the UQ St Lucia campus and attend an interview. Applicants invited to interview for this position will be expected to present a research seminar and give a short teaching demonstration in conjunction with the selection interview process.

Qualification Verification

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring gender, ethnic and cultural diversity to the University. We encourage applicants who have taken breaks in their career for caring duties (such as parental leave or elder care) to apply. In our commitment to gender and cultural equity, it is helpful to understand the context in which each candidate’s career accomplishments have been made and thus we encourage applicants to note if they have had breaks in their career for carer’s leave or alternative career routes in their applications. 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 Science HR science.hr@uq.edu.au