



POSITION DESCRIPTION

School of Mathematics and Statistics
Faculty of Science

Lecturer / Senior Lecturer in Mathematical or Statistical Data Science

POSITION NO	0041941
CLASSIFICATION	Lecturer (Level B) or Senior Lecturer (Level C)
SALARY	Level B: \$114,645 - \$136,136 Level C: \$140,433 - \$161,926 Level of appointment is subject to qualifications and experience.
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full Time (1.0 FTE) The University of Melbourne is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be fully considered subject to meeting the inherent requirements of the position.
BASIS OF EMPLOYMENT	Continuing
OTHER BENEFITS	https://about.unimelb.edu.au/careers/staff-benefits
HOW TO APPLY	Online applications are preferred. Go to https://www.mathjobs.org/jobs , Login or Create a New Account, then find the position by title.
CONTACT FOR ENQUIRIES ONLY	Professor Howard Bondell Tel +61 3 8344 0169 Email: howard.bondell@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fisherman's Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

Position Summary

The School of Mathematics and Statistics is seeking to expand its expertise in mathematical and statistical data science. The successful applicant is expected to develop and maintain a high-level research program in an area of mathematics or statistics with a focus on data science theory, methodology and/or applications. The School seeks a profile which complements its existing data science strengths in aspects of pure and applied mathematics, statistics, machine learning, optimisation and operations research, geometry of deep learning, biostatistics and genomics.

The successful applicant should also have a strong commitment to teaching and the supervision of research students. Teaching will occur within the School of Mathematics and Statistics undergraduate and postgraduate programs and the applicant will be expected to teach mathematics and/or statistics, and their applications to a variety of audiences. They will also supervise research students at undergraduate, MSc and PhD levels.

The University of Melbourne provides an outstanding environment in which to develop innovative research in mathematical and statistical data science, with opportunities for collaborations in the Melbourne Centre for Data Science, with machine learning and bioinformatics researchers in Computing and Information Systems, biostatisticians in Population and Global Health, big data research in genomics in the Melbourne Integrative Genomics research hub, optimisation researchers in the ARC Training Centre OPTIMA, as well as applied and theoretical approaches to data science in other departments/faculties across the University. The University has excellent computing facilities and access to both local and cloud high performance computing clusters.

The School of Mathematics and Statistics encourages applicants who identify as women, non-binary or gender diverse. Equally, we encourage applicants from diverse ethnic and cultural backgrounds and non-traditional education backgrounds. To allow us to consider performance relative to opportunity, we also invite applicants to provide a brief statement (up to 1 page) that describes circumstances that may have affected their career development or progression, including career interruptions or delays, periods of part time work, or forms of bias they have experienced.

1. Key Responsibilities

You are expected to significantly contribute towards research, scholarship and teaching and will make independent and original contributions which expand knowledge or practice in your discipline and have a significant impact on your field of expertise.

1.1 RESEARCH AND RESEARCH TRAINING

- The conduct of research and contribution to knowledge through scholarship, refereed publications and presentations.
- Active application and success in obtaining external research grant income to support research.
- Active participation in research seminars and conferences.
- Active supervision of postgraduate, both MSc and PhD, students.

1.2 TEACHING AND LEARNING

- Effective preparation and delivery of lectures at undergraduate and postgraduate level and the marking and assessment of that material, including as Subject Coordinator.
- Proactive development of subject materials and delivery, including the use of modern technology and online resources as appropriate.
- Supervision of the program of study of postgraduate students engaged in coursework.
- Development of curriculum in data science in both undergraduate and postgraduate levels
- Consultation with and academic mentoring of students.
- The conduct of tutorials and practical classes.

1.3 LEADERSHIP AND SERVICE

- Effectively undertake a range of administrative functions, including those connected with teaching responsibilities and the conduct of the academic affairs of the School.
- Participation in School and/or Faculty meetings and/or the committees that have responsibility for the academic affairs of the School.
- Involvement in professional activity in the discipline.
- Contribution to School activities such as Open day to promote student engagement.

1.4 ENGAGEMENT

- Presentation of research to the public to elevate public awareness of educational and scientific developments and promote critical enquiry and public debate within the community.
- Participation in outreach activities.

1.5 OTHER DUTIES

- Performance of other tasks as requested by the supervisor or the Head of School.
- Active participation in the University Performance Development Framework.

- Ensure an up-to-date record of University compliance courses, such as, but not limited to Appropriate Workplace Behaviour, PDF for Staff and Supervisors, OH &S training courses.

2. Selection Criteria

2.1 ESSENTIAL

- A PhD or equivalent research higher degree in mathematical or statistical data science or a closely related discipline.
- Demonstrated research excellence in relation to career stage including a strong record of publication in mathematical aspects of data science, which could include theory, methodology, and applications.
- The ability to develop research links with other schools, departments and research groups nationally and internationally.
- The ability to attract research funding through nationally competitive grant schemes.
- The ability to develop and teach mathematics, statistics, and/or data science subjects at the undergraduate and postgraduate level.
- The ability to interact well with other academic staff and to contribute to the administration of a large school.
- Clear potential in graduate student supervision.
- Excellent written and oral communication skills in English.
- Demonstrated ability to develop, administer and see through to completion appropriately designed research projects with limited supervision.

2.2 DESIRABLE

- Evidence of success in lecturing large undergraduate classes.
- Evidence of expertise in interdisciplinary research.
- A track record of success in community engagement.

2.3 OTHER JOB-RELATED INFORMATION

- This position requires the incumbent to hold a current and valid Working with Children Check.

3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This

commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 SCHOOL OF MATHEMATICS AND STATISTICS

<http://www.ms.unimelb.edu.au>

The University of Melbourne's School of Mathematics and Statistics is one of Australia's leading mathematics and statistics schools. It has achieved this status through the high quality of its research and teaching programs. The School offers a wide range of subjects to undergraduate and postgraduate students and is involved in aspects of community life that impact on the interests of the School and the discipline.

The School of Mathematics and Statistics has a total of 90 continuing teaching and/or research staff; 37 research only staff and consultants; 19 academic specialists and 16 support staff. In 2023, there were 143 Research Higher Degree and 189 Coursework Master of Science students. The School has had 10 staff members inducted as Fellows of the Academy of Science.

Infrastructure support for research and basic information technology facilities are provided to all members of the department. Special facilities such as high-end workstations and salaries for research fellows are supported through individual competitive external research grants. Members of the School have had considerable success at attracting support from the Australian Research Council. The school currently hosts one ARC Centre of Excellence and one ARC Industrial Transformation Training Centre, and has hosted four ARC Laureate Fellows, thirteen ARC Future Fellows and twenty-four DECRA Fellows.

It is one of the objectives of the University to develop and maintain a strong international profile. In this context, members of the School have strong collaborative links with colleagues worldwide.

5.2 FACULTY OF SCIENCE

<http://www.science.unimelb.edu.au>

Science at Melbourne is a global leader across fundamental and impactful scientific research and education. Science begins with curiosity, and we are dedicated to understanding the universe from the level of sub-atomic particles to the solar system. We aim to be leaders who positively impact the community locally and globally, addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

Our strength is our breadth of expertise. We are the second largest faculty in the University comprising seven schools: Agriculture, Food & Ecosystem Sciences, BioSciences, Chemistry, Geography, Earth & Atmospheric Sciences, Mathematics & Statistics, Physics and Veterinary Science.

This depth of knowledge positions the faculty to better understand, explore and impact our world and humanity, within a truly comprehensive Faculty of Science.

We have more than 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly relevant research. We aim to train students with the knowledge and intellectual flexibility to drive the industries of tomorrow and lead across all levels of society.

We offer a range of undergraduate, honours, graduate and research degrees, enrolling more than 11,500 undergraduate and 3,750 graduate students.

We are dedicated to delivering leading transformative educational outcomes, underpinned by research, and an inclusive and inspiring student experience.

Excellence comes in many forms and diversity of thought, perspective and disciplines is essential to deliver globally leading science. At the core of our success is our focus on an inclusive environment for all in our community. Our Faculty's focus on equity, inclusion and belonging is grounded in our endeavour to ensure we are best placed to advance research, teaching and serve diverse national and global communities.

As a Science community we sit across five of the University's campuses – Parkville, Dookie, Burnley, Creswick and Werribee. This reach provides us with a unique perspective that is beneficial to our teaching and research. It also means we can offer our students a greater variety of learning experiences and internships to engage with industry partners to solve real-world issues.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Melbourne Energy Institute, Melbourne Biodiversity Institute, Office for Environmental Programs, Australian Mathematical Sciences Institute (AMSI) and the Indigenous Knowledge Institute and home to numerous Centres.

5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based

industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>

5.4 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

1. We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
2. We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.
3. We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
4. We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

5.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <https://about.unimelb.edu.au/strategy/governance>