

ASSOCIATE PROFESSOR OF APPLIED MATHEMATICS

DEPARTMENT/UNIT	School of Mathematics
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level D
DESIGNATED CAMPUS OR LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

At [Monash](#), work feels different. There's a sense of belonging, from contributing to something groundbreaking – a place where great things happen. You know you're part of something special and purposeful because, like Monash, your ambitions drive you to make change.

We have a clear purpose to deliver ground-breaking intensive research; a world-class education; a global ecosystem of enterprise – and we activate these to address some of the [challenges](#) of the age, Climate Change, Thriving Communities and Geopolitical Security.

We welcome and value difference and [diversity](#). When you come to work, you can be yourself, be a change-maker and develop your career in exciting ways with curious, energetic, inspiring and committed people and teams driven to make an impact – just like you.

Together with our [commitment to academic freedom](#), you will have access to quality research facilities, infrastructure, world class teaching spaces, and international collaboration opportunities.

We champion an [inclusive workplace culture](#) for our staff regardless of ethnicity or cultural background. We have also worked to improve [gender equality](#) for more than 30 years. Join the pursuit of our purpose to build a better future for ourselves and our communities – [#Changelit](#) with us.

The School of Mathematics is one of the largest of the five Schools in the Faculty, and has close working collaborations with other Schools/Departments such as Physics and Astronomy, Earth, Atmosphere and Environment as well as other Faculties such as Business and Economics, Medicine, Information Technology and Engineering as well as the Monash Data Futures Institute. The School has strong links with outside institutions such as CSIRO, the Defence Science and

Technology Organisation, and the National Australia Bank and a large number of research institutes and universities around the world.

The School is multidisciplinary with very active groups in algebra and discrete mathematics, analysis and geometry, topology, applied mathematics, financial mathematics, fluid dynamics, statistics and stochastic processes, numerical analysis and scientific computing, PDEs, operations research, optimisation, machine learning, and mathematical biology. The School provides undergraduate teaching for students in the Faculties of Science, Engineering and Information Technology, as well as postgraduate training in its key areas of research. The School has approximately 60 Academic and Research staff, 125 Teaching Associates, 5 Professional staff, 60 PhD and 60 Masters Students.

Monash and the Faculty of Science values staff diversity and champions inclusive practices. We are committed to equitable decision making and apply the principles of [achievement relative to opportunity](#) in our selection processes.

POSITION PURPOSE

A Level D academic is expected to make a significant contribution to all activities of the organisational unit or interdisciplinary area and play a significant role within their profession or discipline. Academics at this level may be appointed in recognition of distinction in their disciplinary area.

The successful candidate will be expected to contribute to teaching of general undergraduate mathematics units as well as specialist topics where relevant. They will conduct cutting edge mathematical research within a range of applied and computational mathematics areas, including but not limited to optimisation, scientific machine learning, numerical PDEs, numerical linear algebra, and related fields. Candidates are expected to show expertise in the design, analysis, and/or application of methods for solving scientific problems in areas like climate, physics, and life sciences.

Reporting Line: The position reports to the Head of School

Supervisory Responsibilities: This position provides direct supervision to Honours, Masters and Postgraduate students

Financial Delegation: Not applicable

Budgetary Responsibilities: Not applicable

KEY RESPONSIBILITIES

Specific duties required of a Level D academic may include:

1. The preparation and delivery of lectures, tutorials, practical classes, demonstrations, workshops, and clinical sessions
2. Initiation and development of course materials
3. Course coordination including offering guidance to assistant lecturers and supervision of sessional staff in teaching unit/s if required
4. Consultation with students and supervision of PhD, honours and postgraduate students
5. Preparation and assessment of student assignments and examinations
6. Conduct of original research that will lead to publications in refereed journals or with high level academic or commercial publishers and attract external and government funding
7. Significant role in research project including, where appropriate, leadership of a research team
8. Significant contribution to the profession and/or discipline both nationally and internationally

9. Other duties as directed from time to time

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification and/or recognised significant experience in the relevant discipline area.

In determining experience relative to qualifications, regard shall be had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or contributions to technical achievement. In addition, a position at this level will normally require a record of demonstrable scholarly and professional achievement in the relevant discipline area.

Knowledge and Skills

2. A strong publication record in high-quality journals or equivalent and outstanding contribution to the discipline
3. Successful track record in obtaining external research grants and evidence of holding a significant role in research projects including, where appropriate, leadership of a research team
4. Record of successful supervision of postgraduate research students and the ability to make a significant contribution to postgraduate training programs
5. Demonstrated excellence in teaching in the relevant discipline area (i.e. through evaluations, innovation in presentation and through curriculum development)
6. Demonstrated ability to mentor staff and students
7. High level of interpersonal skills and a proven ability to establish good working relationships with colleagues, students and members of community and professional bodies
8. Demonstrated leadership in committees and other administrative work and portfolios
9. Proven ability to promote the discipline internally within the University as well as externally both nationally and internationally
10. A demonstrated capacity to work in a collegiate manner with other staff in the workplace

OTHER JOB RELATED INFORMATION

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted
- A current satisfactory Working With Children Check is required

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.