



Position description

MAXIMA Program Manager

Position number	
Department/Unit	Monash Academy for Cross and Interdisciplinary Mathematical Applications (MAXIMA), School of Mathematical Sciences
Faculty/Division	Faculty of Science
Classification (salary rates)	HEW Level 8
Employment type	Full-time
Work location	Clayton campus
Date document created or updated	14/08/2013

Position purpose

The MAXIMA Program Manager will be responsible for outreach, research project development and management, interfacing with industry and with academic collaborators, and operational management of MAXIMA (Monash Academy for Cross & Interdisciplinary Mathematical Applications).

The MAXIMA Program Manager will play a pivotal role to the Director of MAXIMA and will be responsible for identifying industry and collaborator needs, assessing the impact of the needs, and then ensuring that those requirements are delivered by coordinating tailored short and long-term research and/or consulting projects, drawing on appropriate resources and skills.

- **Reporting line:** The position reports to the MAXIMA Director.
- **Supervisory responsibilities** No direct reports but will be responsible for the administrative management of MAXIMA staff and students engaged in consulting projects, which will be potentially around 20 or so consultants.
- **Financial delegation and/or budget responsibilities** MAXIMA strategic budget of about \$100K per annum, plus earned research and consulting funds.

Organisational context

Monash University is an energetic and dynamic university committed to quality education, outstanding research and international engagement. A member of Australia's Group of Eight research intensive universities, it seeks to improve the human condition and is committed to a sustainable future. Monash has six campuses in Victoria, a campus in Malaysia, a campus in South Africa, a centre in Prato, Italy, and numerous international partnerships and cooperative ventures. Monash has over 62,500 equivalent full-time students spread across its Australian and off-shore campuses, and over 7,400 full time equivalent staff. Almost 3,500 of these staff members are academic staff.

Faculty of Science is one of ten faculties at Monash University. It offers undergraduate courses and higher degrees by research to nearly 3,500 students at the Clayton and Gippsland campuses, and at Monash University Malaysia; some programmes are also available in off-campus mode. The faculty consists of six Schools and includes major nodes of five national research centres funded by the Australian Research Council, in addition to six faculty research centres and involvement in six Cooperative Research Centres. Ten departments from other university faculties contribute to science teaching at all levels, allowing students to choose their studies from physical, biological, biomedical, behavioural, environmental, mathematical and computer sciences.

Staff within the Faculty of Science are active in conducting internationally recognised research, which is reflected in our teaching programmes; a prime advantage for students is our capacity to offer an extensive choice of subjects, with well-equipped laboratories and sophisticated, state-of-the-art equipment.

The Faculty mission is *"To be recognised as a leader in the design and delivery of high quality and comprehensive programmes in science education and in the conduct of highly original and significant research at the best international standards"*.

The **School of Mathematical Sciences** is located in the Faculty of Science and provides undergraduate teaching for students in the Faculties of Science, Engineering, Information Technology and Pharmacy and Pharmaceutical Sciences, as well as postgraduate training in its key areas of research, principally algebra and discrete mathematics, analysis and geometry, astrophysics and general relativity, atmospheric science and geophysical fluid dynamics, computational mathematics, statistics and stochastic processes, operations research and mathematical biology. There are 36 academic staff in the School, 32 research staff and 3 administrative staff. The total undergraduate EFTSU for the School is currently more than 925 and the total postgraduate EFTSU is about 54.

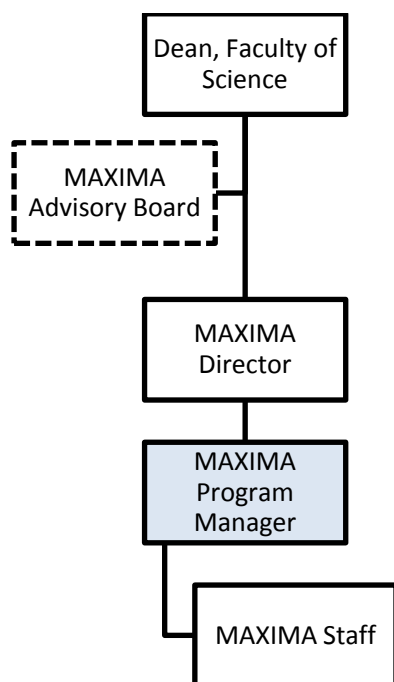
The School of Mathematical Sciences is one of the largest of the six Schools in the Faculty, and has close working collaborations with other Schools/Departments such as Physics, Geosciences, Geography, Computer Science; and other faculties such as Business and Economics, Arts, Medicine, IT and Engineering.

The School has strong links with outside institutions such as CSIRO, the Bureau of Meteorology, the Defence Science and Technology Organisation, and the National Australia Bank and a large number of research institutes and universities around the world. In 2013, MAXIMA will be established to increase the School's engagement with industry and researchers from interdisciplinary areas with interesting mathematical problems.

The School itself is multidisciplinary with very active groups in Algebra and discrete mathematics, Analysis and geometry, Applied Mathematics, Astrophysics and general relativity, Atmospheric science and geophysical fluid dynamics, Statistics and stochastic processes, Computational mathematics, Operations research, Mathematical biology. Much of the research in the School is conducted through the research centres, namely the Monash Centre for Astrophysics (MOCA), the Centre for Modelling of Stochastic Systems (CMSS), the Australian Research Council's Centre of Excellence for Climate System Science, 3D ALIVE (Applied Laboratory for Immersive Visualisation Environment), and MAXIMA (Monash Academy for Cross & Interdisciplinary Mathematical Applications).

MAXIMA is a new centre, launched in September 2013, that harnesses Monash's mathematical talent pool, and creates opportunities for them to work in interdisciplinary teams to solve critical challenges facing society. It involves a large team of mathematically trained academics and research students, not just in the School of Mathematical Sciences, but also in the Faculty of Information Technology, Faculty of Engineering, Department of Econometrics and Business Statistics, and other departments. MAXIMA facilitates and supports interdisciplinary research underpinned by mathematics, including weather and climate modelling, disease modelling, traffic modelling, invasive species modelling, and industry projects to improve productivity. It also engages mathematicians in consulting projects, and provides training opportunities for students. An outreach program helps school students, their teachers and parents to understand the importance of mathematics to society.

Organisational chart



Key result areas and responsibility

Strategic Planning

- Provide timely strategic advice and recommendations about business development opportunities to the Director of MAXIMA
- Lead the development of proposals for new consulting projects and advise on resources required to be competitive within the industry
- In consultation with the MAXIMA Director, develop a strategic plan for MAXIMA, and oversee the implementation plan

Project Development and Facilitation

- Act as the primary interface to research collaborators and industry, and facilitate the development of projects, overseeing the end to end lifecycle of projects and resources.
- Work with academic and industry clients to develop and initiate research or consulting project plans and agreements.
- Develop and maintain strong relationships with partner organisations, existing experts and industry forums in order to inform businesses of opportunities available through technical innovation in processes, product design and facilitating projects.
- Lead and facilitate the development of the Communications and Marketing activities of MAXIMA, in response to change needs and assessments and communicate this through senior management forums so that issues, solutions and recommendations are understood.
- Work in collaboration with Faculty of Science and Monash University business units to leverage established approaches to project development and delivery.
- Participate in Steering Committees and working parties, including preparing presentations and papers for the forums to remain up to date with research activities and developments.

Project Management, Operational Management and Reporting

- Provide a face, alongside the MAXIMA Director, to the public and media seeking input on issues and/or research/educational impacts delivered through MAXIMA.
- Work closely with MAXIMA clients (academic collaborators or industry participants) with the development of budgets and scopes in-line with Faculty of Science and Monash University protocols, and ensure that projects are delivered within these resource boundaries through the scheduling, planning and resourcing of projects.
- Implement and manage a professional client management processes for MAXIMA to track project budgets, scope and timelines. This includes project staff administration, scheduled invoicing, milestone reporting and delivery of agreed outputs to clients.
- Develop an annual MAXIMA business plan, prepare update reports with respect to Business Plan requirements and be responsible for MAXIMA Research Centre finances, Human Resource requirements and the preparation of MAXIMA Advisory Board reports
- Coordinate the assembly of user data for MAXIMA participants, for reporting to MAXIMA Advisory Board, Faculty of Science, Office of the Pro Vice Chancellor for Research & Research Infrastructure, and other stakeholders.
- Provide general operational management for MAXIMA including website management, marketing material and other.

Key selection criteria

Essential

1. Postgraduate qualifications or progress towards postgraduate qualifications (preferably with a management or business component) in mathematics or engineering with a strong mathematics foundation and extensive management experience, or an equivalent combination of relevant knowledge, training and/or experience
2. Demonstrated experience working in a research environment
3. Demonstrated experience in the development and implementation of research and industrial projects, practices and methods
4. Experience in strategic planning, and industrial research management experience.
5. Exceptional ability to analyse, isolate and interpret business needs and develop appropriate business and technical and non-technical solutions.
6. High level of oral and written communication skills, including demonstrated experience in preparing high quality reports and proposals.
7. Demonstrated ability to work well within a team environment, and have the capability and initiative to work with minimum supervision.
8. Exceptional ability to influence and build productive relationships with industry providers and stakeholders.
9. Ability to understand the organisation's goals and objectives and translate these to policy and operational processes.

Desirable

10. Excellent understanding of a variety of mathematical and statistical approaches to assist with matching mathematical personnel to project needs.

Other job related information

- Travel (to industry sites and other campuses of the University)
- Successful discharge of the role may call for willingness to work hours beyond the norm.

Legal compliance

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including:

- Equal Employment Opportunity, supporting equity and fairness
- Occupational Health and Safety, supporting a safe workplace
- Conflict of Interest (including Conflict of Interest in Research)
- Paid Outside Work
- Privacy
- Research Conduct
- Staff/Student Relationships