



## POSITION DESCRIPTION

Australian Mathematical Sciences Institute  
Faculty of Science

### Schools Outreach Officer

<b>POSITION NO</b>	0038706
<b>CLASSIFICATION</b>	HEW 8
<b>SALARY</b>	\$93,052 - \$100,717 p.a.
<b>SUPERANNUATION</b>	Employer contribution of 17%
<b>EMPLOYMENT TYPE</b>	Full time (fixed-term) position available for 4 years Fixed term contract type: Externally Funded
<b>OTHER BENEFITS</b>	<a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/benefits</a>
<b>CURRENT OCCUPANT</b>	New
<b>HOW TO APPLY</b>	Online applications are preferred. Go to <a href="http://about.unimelb.edu.au/careers">http://about.unimelb.edu.au/careers</a> , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
<b>CONTACT FOR ENQUIRIES ONLY</b>	Janine McIntosh Tel +61 3 8344 1790 Email <a href="mailto:mcintosh@unimelb.edu.au">mcintosh@unimelb.edu.au</a> <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our websites:

[about.unimelb.edu.au/careers](http://about.unimelb.edu.au/careers)  
[joining.unimelb.edu.au](http://joining.unimelb.edu.au)

## ***Position Summary***

The position reports to the Schools Manager of the Australian Mathematical Sciences Institute (AMSI). Central to the work of AMSI is the production of quality mathematics materials and the provision of teacher professional development and support for those teaching mathematics.

AMSI has secured funding for a large-scale outreach and awareness project, known as **Choose Maths**. As part of the AMSI Schools team, the incumbent will work with students, parents and teachers through a program of professional development, awareness and reward to turn around community attitude to participation in mathematics, especially for girls and young women.

The program will be founded in a strong evidence base and will have direct and specific influence within a defined number of schools as well as a broader scope across the wider community through public awareness raising activities.

The goal of **Choose Maths** is to build self-sustaining education communities where girls and young women share equally in the rewarding careers and rich life experiences that mathematics offers.

The Project Officer will participate in AMSI School activities as follows:

### *Outreach*

AMSI conducts an Outreach Program supporting primary and secondary schools in their teaching of mathematics. The Project Officer will participate in the delivery of this program to participating schools. The support of teachers in the teaching of mathematics and the implementation of the Australian Curriculum will form a significant part of this role.

### *Materials*

The Project Officer will be part of a team developing and writing materials aligned to the Australian Curriculum: Mathematics to support teachers in their understanding of the connections within and across mathematical ideas. Implementing the use of the materials in the outreach schools will be a further component of the role.

### *Careers*

AMSI produces mathematics careers materials for teachers, parents and students. The appointee will participate in the collection of key information that will determine content of the material and in the dissemination of careers advice and materials to schools and career advisers.

### *Community Liaison*

**Choose Maths** will establish a network of students, parents and teachers around Australia to facilitate communication about mathematics and the benefit it provides to careers, personal growth and the economy. The appointee will assist in the development of this network and the associated awareness-raising events.

The AMSI head office is located at The University of Melbourne and the incumbent is required to attend meetings at head office on a regular basis. While the position is nominally based at the University of Melbourne, there is some scope for the appointee to be based elsewhere, close to one of the nodes for outreach work which are yet to be determined. The position will involve interstate travel.

## ***1. Selection Criteria***

### **1.1 ESSENTIAL**

- ▶ Degree and postgraduate diploma qualifications or equivalent in mathematics and/or education
- ▶ Thorough knowledge of school mathematics in either or both of primary and secondary school settings
- ▶ A significant level of experience in teaching mathematics in the school environment
- ▶ Experience in the preparation and delivery of professional development in mathematics
- ▶ Proven capacity to develop written materials for use in schools
- ▶ Extensive experience and management expertise in a school setting
- ▶ Excellent interpersonal and communication skills, both written and oral
- ▶ Proven analytical and strategic skills in coordinating people and events
- ▶ Proven ability to work well under pressure, prioritise tasks and to meet deadlines
- ▶ Self-motivation and an ability to work both independently and as part of a team
- ▶ Current teacher registration

### **1.2 DESIRABLE**

- ▶ Post-graduate qualifications in mathematics and/or education
- ▶ Knowledge of the Australian Curriculum: Mathematics
- ▶ Experience in team management or coordination at a school level
- ▶ Well-developed computer skills
- ▶ Demonstrated ability to relate to staff working in both primary and secondary schools
- ▶ Demonstrated ability to liaise with people from the mathematical sciences
- ▶ Experience in Salesforce Customer Relationship Management system

## ***2. Special Requirements***

- ▶ Willingness to travel interstate
- ▶ Some out of hours work may be required
- ▶ The AMSI head office is located at The University of Melbourne and the incumbent is required to attend meetings at head office on a regular basis

### **3. Key Responsibilities**

#### **3.1 OUTREACH**

- ▶ Scheduling of school visits and the professional development to best serve the needs of teachers in the outreach program
- ▶ Developing professional development programs in conjunction with school teaching staff and based on successful classroom research that will enhance the teaching and learning of mathematics in schools
- ▶ Delivery of professional development in participating schools. Visiting schools regularly for the purposes of mentoring teachers through their mathematics improvement strategy
- ▶ Liaising with teachers and schools personnel in the program
- ▶ Developing programs in conjunction with school teaching staff that will enhance the teaching and learning of mathematics in participating schools
- ▶ Developing materials for teachers designed to support their learning of the connections that are inherent in mathematics and their teaching of the subject

#### **3.2 MATERIALS DEVELOPMENT**

- ▶ The writing and editing of school support material in online and print formats for teachers and students aligned to the Australian Curriculum: Mathematics
- ▶ Implementation of AMSI schools materials within outreach schools including classroom modelling of their use and professional discussions with teachers regarding mathematics content and associated pedagogical implications

#### **3.3 CAREERS**

- ▶ Conducting a literature review and an interview sequence to form the basis of the actions AMSI will take to attract more women and girls into mathematics programs
- ▶ Implementing the awareness-raising elements of the program
- ▶ Conducting research into the current availability and scope of mathematics careers materials and identifying areas of need. Writing and editing content for mathematics careers materials to be produced by AMSI
- ▶ Implementation of careers program in schools including careers advice and professional development for teachers and careers advisers and providing information for students and parents

#### **3.4 REPORTING AND COMPLIANCE**

- ▶ Collection and maintenance of data from participating schools that will be used in the preparation of reports to funding partners, to government and to AMSI Members
- ▶ Ensuring compliance with project milestones as required by funding partners

### 3.5 OTHER

- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 6

## ***4. Job Complexity, Skills, Knowledge***

### 4.1 LEVEL OF SUPERVISION / INDEPENDENCE

The incumbent reports to the Schools Manager and works under the broad direction of the Schools Outreach Manager, however will have a high degree of independence and is expected to work autonomously. The position is required to represent AMSI and interact in a professional and informed manner with individuals from a broad range of internal and external stakeholder groups.

### 4.2 PROBLEM SOLVING AND JUDGEMENT

The incumbent is required to use creative thinking and initiative to find solutions to any issues identified.

The incumbent needs to be able to undertake a number of activities simultaneously, which requires sound time management to meet specific deadlines.

### 4.3 PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

The incumbent is expected to have a well-developed knowledge of primary or secondary school mathematics and the preparation and delivery of professional development training for teachers. As such, the position requires the incumbent to remain abreast of developments in mathematics teaching, including in-depth knowledge of the Australian Curriculum: Mathematics.

Faculty and University policies and procedures related to travel and administration related to the demands of the position is required, or the ability to quickly acquire such knowledge.

### 4.4 RESOURCE MANAGEMENT

Efficient time management, organisational and problem solving skills are essential, as is the ability to handle varying workloads.

The incumbent must have well-developed communication skills, with the ability to deal with a wide range of range of individuals, from internal staff to external stakeholders, and be able to deliver presentations using a variety of media to small to medium-sized audiences.

The incumbent is expected to perform administrative tasks related to his/her work, including scheduling of meetings and events, making travel and accommodation arrangements, and formatting of reports.

### 4.5 BREADTH OF THE POSITION

The position takes on a variety of roles within AMSI, and outside of it in schools and the wider community. The engagement aspect to the role is key to the success of the impact of the Choose Maths project.

As the responsibilities of the position are broad and varied requiring the incumbent to liaise with academics, university staff, students and external contacts to AMSI, the incumbent is expected to acquire and maintain an up-to-date knowledge in all areas relevant to the position.

## **5. Other Information**

### **5.1 ORGANISATION UNIT**

[www.amsi.org.au](http://www.amsi.org.au)

The Australian Mathematical Sciences Institute (AMSI) is located at the University of Melbourne. It is situated at Building 161 on the university's main campus in Parkville.

AMSI was established in November 2002 with initial funding of \$1M from the Victorian Government's Science, Technology and Innovation Infrastructure grants program and matching funds from a member consortium of Australian universities and other mathematical organisations. The major supporting institutions are La Trobe University, Monash University, RMIT University, The Australian National University, The University of Melbourne, The University of New South Wales, The University of Queensland, The University of Sydney, The University of Adelaide, The University of Newcastle, Queensland University of Technology and The University of Western Australia. Other partners include CSIRO, The Australian Mathematics Trust, the Bureau of Meteorology, Australian Bureau of Statistics and the Defence Sciences Technology Organisation.

Since its inception AMSI has developed as a nationally and internationally recognised centre for the mathematical sciences with achievements ranging across:

- ▶ Representation of its members and the wider mathematical community in communicating the strengths, importance and vital benefits of mathematics and statistics to journalists, university administrators, politicians, public servants and industrialists;
- ▶ Significant participation in and support of high-level submissions to governments;
- ▶ Successful organisation of wide-ranging industry-linked activities;
- ▶ Enhancement of the national level of competency in school mathematics through provision of well researched, well written mathematics textbooks and teacher resource materials, teacher professional development and electronic teaching aids;
- ▶ On-going provision of activities at higher education level including postgraduate and specialist courses and workshops.

The University of Melbourne's Department of Mathematics and Statistics is one of Australia's leading mathematics and statistics departments. It has achieved this status through the high quality of its research and teaching programs. The Department 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 Department and the discipline.

### **5.2 FACULTY OF SCIENCE**

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

Science at the University of Melbourne is the most highly ranked Faculty of Science in Australia.\* Science is defined by its research excellence in the physical and life sciences and is at the forefront of research addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

We have over 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, which empowers our STEM students and graduates to understand and address complexities that impact real world issues and the challenges of tomorrow.

We aspire to engage the broader community with the impact that Science has on our everyday lives. Through the strength of our internships and research project offerings, our students are provided opportunities to engage with industry partners to solve real-world issues.

The Faculty of Science has over 40,000 alumni and is one of the largest faculties in the University comprising seven schools: BioSciences, Chemistry, Earth Sciences, Ecosystem and Forest Sciences, Geography, Mathematics and Statistics, and Physics.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Office for Environmental Programs and home to numerous Centres.

Science manages more than \$280 million of income per annum, with a staff base in the order of 220 professional staff, and more than 540 academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 7,500 undergraduate and graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science) with enrolments of approximately 6,200 students.

The Faculty of Science is a leader in research, contributing approximately \$50 million in HERDC income per annum. The Faculty of Science is highly research focused, performing strongly in the ARC competitive grants schemes, often out-performing the national average. The Faculty of Science is currently growing its competitiveness and standing in the NHMRC space.

The Faculty of Science provides community services and industry partnerships based on a solid foundation of research in the pure and applied sciences. The Faculty has an endowment of approximately \$50 million. The annual income from the endowment supports more than 120 prizes, scholarships and research awards.

\*Figures from the latest available data for 2015, including published international rankings data.

### 5.3 THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a leading international university with a tradition of excellence in teaching and research. With outstanding performance in international rankings, Melbourne is at the forefront of higher education in the Asia-Pacific region and the world. The University of Melbourne is consistently ranked among the world's top universities. Further information about our reputation and global ranking is available at <http://futurestudents.unimelb.edu.au/explore/why-choose-melbourne/reputation-rankings>.

Established in 1853, shortly after the founding of Melbourne, the University is located just a few minutes from the centre of this global city. The main Parkville campus 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.

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 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

- ▶ Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. [www.growingesteem.unimelb.edu.au](http://www.growingesteem.unimelb.edu.au)
- ▶ The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.
- ▶ The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. <http://www.unimelb.edu.au/research/research-strategy.html>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

**Understanding our place and purpose** – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.

**Fostering health and wellbeing** – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.

**Supporting sustainability and resilience** – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of *Research at Melbourne: Ensuring Excellence and Impact to 2025*.



## 5.5 EQUITY AND DIVERSITY

Another key priority for the University is access and equity. The University of Melbourne is strongly committed to an admissions policy that takes the best students, regardless of financial and other disadvantage. An Access, Equity and Diversity Policy Statement, included in the University Plan, reflects this priority.

The University is committed to equal opportunity in education, employment and welfare for staff and students. Students are selected on merit and staff are selected and promoted on merit.

## 5.6 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 <http://www.unimelb.edu.au/unisec/governance.html>.

## ***6. 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:

<http://safety.unimelb.edu.au/topics/responsibilities/>

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