

Undergraduate Research Scholarship Programmes in Australian Universities

A Preliminary Survey

A research project undertaken by **Evan Jewell**, undergraduate researcher for the ALTC Fellowship, *Enhancing Undergraduate Engagement through Research and Inquiry.*

The Uno was the work of a first-year undergraduate, Ben Guek, now studying at MIT.



University-funded programmes

University	Discipline(s) Open to Research	No. of Programmes	University	Discipline(s) Open to Research	No. of Programmes	University	Discipline(s) Open to Research	No. of Programmes
Australian National University	University Wide – all disciplines. Discipline specific programmes: sustainability	3	Queensland University of Technology	University Wide – all disciplines	1	University of South Australia	University Wide – most disciplines	2
Central Queensland University	Plant & water sciences.	1	Royal Melbourne Institute of Technology	Electrical & computer engineering	1	University of Sydney	IT: civil engineering; chemistry; mathematics & statistics; molecular & microbial sciences; physics; medicine; pharmacy.	9
Charles Sturt University	Humanities, social sciences, visual & performing arts, agriculture, animal & veterinary sciences.	3	Swinburne University of Technology	Information & communication technologies	2	University of Tasmania	Sciences: engineering; technology; epidemiology	3
Deakin University	Material & fibre innovation; life & environmental sciences.	2	University of Adelaide	University Wide – all disciplines	1	University of Technology Sydney	Information and communication technologies.	1
Flinders University	Sociology; economics; psychology; midwifery & nursing	2	University of Melbourne	Information systems; biochemistry & molecular biology; medicine: anatomy & cell biology; chemistry; optometry & vision sciences; mathematics & statistics; and the sciences in general.	8	University of Western Australia	Astronomy & astrophysics; biomedical, biomolecular, & chemical sciences, including physiology and nanotechnology; medicine, dentistry and health sciences.	7
Griffith University	Sciences (particularly, cell and molecular science, and glycomics).	2	University of Newcastle	University Wide – all disciplines. Discipline specific programmes: Electrical engineering, biomedical sciences, health sciences.	5	University of Wollongong	Informatics: computer science & software engineering; information systems & technology; electrical, computer, & telecommunications engineering; mathematics & applied statistics; information communication technologies.	1
La Trobe University	Chemistry	1	University of New South Wales	Faculty Wide – Medicine, science, engineering.	4			
Macquarie University	Physics; photonics; astronomy; biomolecular sciences; chemistry; biology; electronic engineering; computing; mathematics.	6	University of Queensland	University Wide – most disciplines	1			
Monash University	University Wide – selected disciplines: geography & environmental science; engineering; IT; biology; physiology; psychological medicine; psychology; psychiatry; chemistry; mathematics; geosciences; accident research; synchrotron science.	1						
Murdoch University	Veterinary & biomedical sciences; chiropractic & sport sciences.	2						

Externally-funded programmes

Funding Body	Areas(s) Open to Research	Availability	Funding Body	Areas(s) Open to Research	Availability	Funding Body	Areas(s) Open to Research	Availability
Asthma Research Foundation of Western Australia	Asthma research	Western Australian universities only	CSIRO	Australian Telescope National Facility; energy technology; entomology; information and communication technologies; livestock industries; materials science & engineering; mathematical & information sciences; minerals; plant industry.	Non-university specific	National Program for Sustainable Irrigations	Irrigation management research and development	Non-university specific
Australian Centre for Plant Genomics	Agri/biotech research and background fields such as biotechnology; agriculture; biology; plant physiology; software design; statistics and mathematics.	Non-university specific	eResearch South Australia	Interdisciplinary information communication technologies employed in the research of any applicable discipline.	South Australian universities only	Peter Mac Research Division (in conjunction with Cancer Council Victoria)	Science, applied science, biomedical science or medicine	Non-university specific
Australian Gemini Office - Astronomy Australia Ltd	Physics, Maths, Astronomy or Engineering	Non-university specific	Food Standards Australia New Zealand	Food regulation research including nutrition, microbiology, toxicology, social sciences, communications.	Non-university specific	Plant Energy Biology Australian Research Council Centre for Excellence	Plant energy	University of Western Australia only
Australian Heart Foundation	Biomedical, clinical or public health research broadly related to cardiovascular function and disease.	Non-university specific	International Centre for Radio Astronomy Research (in conjunction with NVIDIA)	Physics, astronomy, computer science, or engineering.	Non-university specific	Prince Henry's Institute of Medical Research	Medical research	Non-university specific
Australian Mathematical Sciences Institute (AMSI)	Mathematical sciences (mathematics, engineering, physics, economics).	Member Universities only	Kidney Health Australia	Research related to the causes, prevention and treatment of disorders of the kidneys and urinary tract.	Non-university specific	Queensland Institute of Medical Research	Science, medicine, dentistry, veterinary science	Non-university specific
Australian Pork Limited (2 programmes)	Pork industry research	Non-university specific	Lung Institute of Western Australia (LIWA)	Respiratory research	Non-university specific	Rail Cooperative Research Centre	Rail research areas, such as climate change and the environment, rail safety, smart technologies.	Rail CRC participant universities only
Australian War Memorial	History and museum studies	Non-university specific	Multiple Sclerosis Research Australia (MSRA)	MS research	Non-university specific	The Queen Elizabeth Hospital (TOEH) Research Foundation	Medical research	South Australian universities only
Bio21 Institute (in conjunction with over 20 other Victorian research institutes)	Biomedical research	Victorian universities only	National Archives of Australia	20th century Australian history, politics, foreign relations, social studies or related areas.	Non-university specific	Water Quality Research Australia	Water quality research, particularly science-based.	Non-university specific
Cancer Council Victoria; Cancer Council Western Australia; Cancer Council South Australia (1 programme in each State Council)	Cancer research	Confined to universities within the relevant State	National Information Communication Technologies Ltd. (NICTA)	Information communication technologies	University partners only	Western Australia Department of Commerce	WA Industry	Western Australian universities only

Outcomes of the project thus far:

- Web-researched 39 Australian universities, including the Group of Eight, Australian Technology Network, Innovative Research Universities Australia, and Macquarie University.
- Web-researched 31 external funding bodies.
- Conducted comprehensive email and phone interviews with over 60 university academics and administrators, and representatives from external funding bodies.

Scholarships typically take the form of a weekly stipend on a pro rata (tax-free) basis, or less commonly, as a lump-sum or casual hourly rate (taxable).

A total of 99 scholarship programmes have thus far been identified in Australia.

The Group of Eight universities possess the highest concentration of scholarships and funding available for these programmes.

Academics who supervise undergraduate research are almost always unpaid volunteers, and often fund undergraduate research scholarships from their own research grants.

32 scholarship programmes funded by external bodies in Australia.

67 scholarship programmes funded by Australian universities identified

Funded undergraduate research primarily aims at encouraging only the best students to pursue an Honours year or graduate research.

The majority of funded undergraduate research takes place in the context of summer vacation schemes outside of the university semester and curriculum.

The scholarship programmes appear to be concentrated in the science and technology disciplines.

Universities (15) where scholarship programmes are yet to be identified:

Curtin University of Technology, James Cook University, University of Western Sydney, University of Canberra, University of Southern Queensland, University of Ballarat, Victoria University, Southern Cross University, Australian Catholic University, Edith Cowan University, University of the Sunshine Coast, University of New England, Bond University, Charles Darwin University, University of Notre Dame Australia.

Aims of the project:

- To identify undergraduate research scholarship programmes in Australia.
- To investigate levels of engagement, and supervision and financial support to students.
- To assess the size of programmes offered by Australian universities and external bodies, to whom they are targeted, and to what purpose.
- To examine the nature and extent of the funding available, both university and non-university, for these programmes.
- To examine the proposed aims of programmes and their outcomes.
- To identify the challenges faced in the past, present, and future.

