

POSITION DESCRIPTION – ACADEMIC

POSITION INFORMATION

Position Title	Associate Professor of Statistics in Education		
Faculty	Faculty of Education and Arts		
Institute	Learning Sciences Institute Australia (LSIA)		
Nominated Supervisor	Director LSIA, Claire Wyatt-Smith	Campus/Location	Brisbane
Academic Level	D	Academic Career Pathway	Research-focussed
CDF Achievement Level	2 Management (Middle)	Work Area Position Code	
Employment Type	Full-Time Fixed-Term	Date reviewed	November 2017

ABOUT AUSTRALIAN CATHOLIC UNIVERSITY

Mission Statement: Within the Catholic intellectual tradition and acting in Truth and Love, Australian Catholic University is committed to the pursuit of knowledge, the dignity of the human person and the common good.

Australian Catholic University (ACU) is both a Catholic University and a public institution within the Australian higher education sector. ACU is an inclusive community which welcomes students and staff of all beliefs. The University is committed to a strong Catholic ethos and seeks to foster and promote teaching and learning, research and scholarship, and community engagement in the Christian tradition. As valued members of our community, all staff members are expected to have an understanding of ACU's [Mission](#) and values and to demonstrate an active contribution to them.

The University shares with universities worldwide a commitment to quality in teaching, research and service. It aspires to be a community characterised by free enquiry and academic integrity.

The University chooses to focus on areas of teaching and research that are closely connected with its particular character as a University that is Catholic, public and national. The focus areas are Theology and Philosophy, Health, Education, and the Common Good and Social Justice.

ACU has over 2,500 staff supporting more than 34,000 students across seven campuses – Adelaide, Ballarat, Brisbane, Canberra, Melbourne, North Sydney and Strathfield.

The structure to support this complex and national University consists of:

- Provost
- Chief Operating Officer & Deputy Vice-Chancellor
- Deputy Vice-Chancellor, Research
- Deputy Vice-Chancellor, Students, Learning and Teaching
- Vice President
- Pro Vice-Chancellor Assisting the Vice-Chancellor and President

Each portfolio consists of a number of Faculties, Research Institutes or Directorates. The Directorate of Identity and Mission drives both the Identity and the [Mission](#) of the University. In addition, five Associate Vice-Chancellors and Campus Deans focus on the University's local presence and development of the University at the local 'campus' level.

The University pursues performance excellence and offers an environment where staff are valued and rewarded. Staff are expected to demonstrate a commitment to continuous improvement and to participate fully in resolving issues to achieve and maintain quality standards relevant to role. Further information about a career with ACU is available at www.acu.edu.au.

ACU is committed to diversity and social inclusion in its employment practices. Applications from Aboriginal and Torres Strait Islander people, people with disabilities and people from culturally diverse groups are encouraged.

RESEARCH INSTITUTES

Research Institutes have been established at ACU as rigorous interdisciplinary and collaborative research environments without discipline-based boundaries, facilitating both immediate and ongoing collaborations of ACU researchers with interpersonal and national experts and enabling exceptional opportunities for innovative research to be conducted on a significant scale. This creates the potential for profound impact benefiting the research community and society as a whole.

The following Research Institutes have been established:

- Institute for Positive Psychology
- Mary MacKillop Institute for Health Research
- Learning Sciences Institute Australia
- Institute for Religion and Critical Inquiry
- Institute for Social Justice
- Institute for Health and Ageing
- Institute for Religion, Politics and Society.

ABOUT LEARNING SCIENCES INSTITUTE AUSTRALIA

The Learning Sciences Institute Australia (LSIA) is a national research institute hosting a team of eminent researchers and international scholars undertaking nationally-funded research studies with a range of industry-funded partners. Our research draws on both qualitative and quantitative methodologies and includes large-scale, longitudinal studies and meta-analyses. A priority focus is on research relating to policy and practice.

LSIA's research focuses on 21st Century learning, student diversity, innovation and engagement across six areas of research concentration:

- educational assessment, evaluation and student learning
- learning, learner diversity and reforming classroom practices
- mathematics education across the disciplines
- early childhood futures
- educational semiotics in English and literacy pedagogy
- teacher education, quality and professional practice.

LSIA also has a growing team with expertise in data analytics including data design, statistical methods for modelling complex data (including longitudinal survey, administrative and linked datasets) and data science.

Our researchers are concerned with generating and disseminating new knowledge to improve the learning outcomes of children and young people, especially those experiencing disadvantage, on the margins or at risk.

LSIA provides a forum for researchers, scholars, policy makers and practitioners to collaborate and share evidence-based knowledge to address barriers to achievement and learning engagement faced by young people. Further information about the Institute can be found at: <http://www.lsia.acu.edu.au>

POSITION PURPOSE

The Associate Professor of Statistics in Education will contribute to the research enterprise of LSIA. The incumbent will work within a high performing research team of senior, internationally recognised scholars within LSIA's areas of research concentration. In addition, the successful applicant will contribute to the development of scholarship, research and/or professional activities in the Institute.

The position holder will advance his or her own research portfolio in statistical application and methodological development, including large-scale nationally competitive grants and publications in prestigious international journals and industry partnerships at national and international levels. In addition, the appointee will provide strategic leadership and application in quantitative research design and data analytic methodologies across LSIA. In addition to standard methods of statistical analyses, particular areas of interest include traditional reliability and item response modelling, multilevel (or mixed) models for hierarchical data, the application and development of methods for the analysis of large longitudinal and linked datasets and machine learning techniques. Sources of secondary data may include longitudinal surveys, such as cohort and panel surveys, and administrative data from government and other organisations relevant to education and social research. Areas of research design include prospective cohort study designs, and innovative evaluation designs.

POSITION RESPONSIBILITIES

Introduction

A number of frameworks and standards express the University's expectations of the conduct, capability, participation and contribution of staff. These are listed below:

- ACU Strategic Plan 2015-2020
- Catholic Identity and Mission
- Learning For Life Framework 2014-2017
- ACU Teaching Criteria and Standards Framework
- Research Quality Standards
- Academic Performance Matrices and Evidence Framework
- ACU Capability Development Framework
- Minimum Standards for Academic Levels (MSALs)
- Higher Education Standards Framework
- ACU Service Principles
- ACU Staff Enterprise Agreement including provisions in relation to Performance Excellence and Academic Career Pathways.

The following two frameworks in particular are important in understanding the expectations of an academic position and the required qualifications and capability of a position holder:

- The [Academic Performance Matrices and Evidence Framework](#) which describes the performance standards in areas of academic activity.
- The [Capability Development Framework](#) which describes the core competencies needed in all ACU staff to achieve the University's strategy and supports its mission.

All academic staff are allocated workload comprising a range of academic duties/activities that fall within the following three broad areas of academic activity in line with the relevant Academic Career Pathway and Academic Level.

- Teaching, Curriculum Development and Scholarship of Teaching
- Research
- Academic leadership/service.

Key responsibilities

Broad area of academic activity	Key responsibilities specific to this position	Relevant Core Competencies (Capability Development Framework)
Teaching, curriculum development and scholarship of teaching	<ul style="list-style-type: none"> • Provide research supervision of early career researchers and higher degree research students as a principal or co-supervisor. • Provide academic mentoring and advice to researchers in the Institute about quantitative methodologies. 	<ul style="list-style-type: none"> • Collaborate effectively • Coach and develop
Research	<ul style="list-style-type: none"> • Conduct research of international standing and participate effectively in interdisciplinary teams. • Produce high-quality publications as sole author and in collaboration with members of the Institute to be published in international peer-reviewed outlets. • Prepare and submit research grant applications, and actively identify and seek funding from external bodies, in collaboration with other researchers within the Institute. • Strengthen the quality of quantitative methodological design and analysis across the Institute, including statistical methods for analysis of complex longitudinal data and large linked datasets (survey and administrative data), the application and development of methods for analysing hierarchical data (multilevel or mixed models) and designing prospective cohort studies. 	<ul style="list-style-type: none"> • Apply commercial acumen • Deliver stakeholder centric service • Collaborate effectively • Communicate with impact
Academic Leadership and Service	<ul style="list-style-type: none"> • Provide collaborative local leadership of the research including quantitative methodologies and grow partnerships in consultation with the Institute Director. • Actively contribute to the intellectual life of the Institute, the Faculty of Education and Arts, and the University. 	<ul style="list-style-type: none"> • Delivery stakeholder centric service • Be responsible and accountable for achieving excellence • Make informed decisions

SELECTION CRITERIA

This section sets out the qualifications, skills, knowledge, experience and competencies expected of the position holder, collectively referred to as 'qualifications and capability'. These are informed by the evidence and performance standards for the relevant Academic Level and Academic Career Pathway and Academic Level drawn from the [Academic Performance Matrices and Evidence Framework](#) and the Core Competencies set out in the [Capability Development Framework](#).

Opportunities to develop capability are provided through the development programs coordinated by internal providers of professional development. See the [Training and Development website](#) for more information.

Qualifications and Capability		Selection Criteria?
Qualifications and other credentials		
1.	A PhD and extensive experience in a similar role or demonstrated equivalent knowledge, expertise and experience.	Yes
Research		
2.	A strong track record in publications in leading international journals and in attracting external funding including national competitive grants and industry funding.	Yes
3.	A successful track record of undertaking mixed-methods research and quantitative data analyses working with complex longitudinal education and social data, including linked datasets (survey and administrative data).	Yes
4.	Demonstrated experience in using a range of statistical software packages for research in the social sciences, data management and application of advanced statistical modelling techniques for hierarchical and complex data.	Yes
5.	Demonstrated ability to work individually and in research teams to deliver shared goals and meet deadlines.	Yes
6.	A strong track record of collaborating with researchers, and industry and community groups with researchers to complete research on time and on budget.	Yes
7.	Demonstrated experience with the application of hierarchical linear mixed models, including multilevel models and other advanced statistical modelling methods (such as econometric methods) for analysis of complex longitudinal and clustered data.	Yes
Core Competencies		
8.	Demonstrated confidence and courage in achieving ACU's Mission, Vision and Values by connecting the purpose of one's work to ACU's Mission, Vision and Values.	Yes
Other attributes		
9.	Demonstrated commitment to cultural diversity and ethical practice principles and demonstrated knowledge of equal employment opportunity and workplace health and safety, appropriate to the level of the appointment.	Yes
10.	Knowledge and expertise in the application of machine learning techniques for analysing big data in social research.	Desirable
11.	Knowledge and expertise in the economics of education.	Desirable