POSITION DESCRIPTION
Academic Positions
(In addition to the Position Classification Standards)

Position Title:	Statistical Computing Scientist	Level:	C
Faculty/Division:	Faculty of Engineering and Information Sciences		
Department/Location:	National Institute for Applied Statistics Research Australia (NIASRA)		

Primary Purpose of the Position:

This position will provide research innovation in statistical computing as part of NIASRA's research and consulting projects, and will be responsible for translating the outcomes of the research program in environmental informatics led by Distinguished Professor Noel Cressie into open-source software. Datasets used in the program of research will be made available in conjunction with software through a well designed website. Through these media, the statistical methodology will be communicated to the statistical and environmental science research community. Opportunities are available to make a limited contribution to the teaching program.

Position Environment:

NIASRA is one of the research strengths of the University. It undertakes high quality and impact research, consulting, and professional education and training. The position will primarily undertake research associated with projects led by Professor Cressie, which may involve collaboration with researchers in other institutions and organisations in Australia and internationally.

There are currently 20 staff members who work in statistics, and over 20 PhD students and Masters students. NIASRA has four research Professors and extensive links with Australian and international research organisations: Professor Noel Cressie is among Thomson Reuters ISI's elite group of Highly Cited mathematical scientists; Professor Ray Chambers is funded by the Australian Bureau of Statistics; Professor Brian Cullis is funded by the Grains Research Development Corporation and CSIRO; Professor David Steel is the Director of NIASRA. NIASRA has three connected major research themes: Environmental Informatics (led by Prof Cressie), Survey Methodology (led by Prof Chambers), and Biometrics (led by Prof Cullis) and also undertakes research in Statistical Education and Financial Mathematics.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Provide innovative statistical computing research, applied to research projects for NIASRA	Effective computing algorithms and software implementation	
2.	Effectively translate the outcomes of the fundamental research of the Centre for Environmental Informatics led by Prof Noel Cressie, and other research projects conducted by NIASRA, into open-source software and develop an associated website where software and datasets are made available	Effective translation of research into software and websites.	
3.	Conduct research as part of externally funded and other research projects, including the production of publications in	High-quality research papers and other research outputs	

	high-quality journals, high impact reports, and conference and seminar papers		
4.	Liaise with the research and support staff involved in the projects in UOW and other institutions and organisations	Effective liaison with relevant staff	
5.	Administrative functions connected with the research projects and attendance at relevant research meetings	Effective administration of the statistical-computing component of the project	
6.	Limited contributions to the teaching program, preparation and delivery of short courses and professional education, and contributions to consulting projects in statistical methods	Subjects and courses delivered effectively and consulting projects completed	
7.	Supervisory roles: Communicate and consult with staff on workplace and staffing matters.	To foster direct relationships with staff and enhance engagement within the university.	
8.	Observe principles and practices of Equal Employment Opportunity	To ensure fair treatment in the workplace	
9.	Have OH&S responsibilities, accountabilities and authorities as outlined in the http://staff.uow.edu.au/ohs/commitment/responsibilities/ document	To ensure a safe working environment for self & others.	

Inherent Requirements:

This position description outlines the major accountabilities/responsibilities and the selection criteria against which you will be assessed as suitable for the position. As such there will be specific job requirements that we refer to as Inherent Requirements.

Inherent Requirements refer to your ability to:

- Perform the essential duties and functional requirements of the job;
- Meet the productivity and quality requirements of the position;
- Work effectively in the team or other type of work organisation concerned; and
- Do the job without undue risk to your own or others health, safety and welfare at work.

If you have any injuries, illness, disorder, impairment, condition or incapacity that may affect your ability to perform the inherent requirements of the position, we encourage you to discuss this with the University to assist in the process of identifying reasonable adjustments to enable you to perform the duties of the position. The University wants to place you in the best situation to use your skills effectively in the position you are applying for at the University.

Reporting Relationships:

Position Reports to:	Professor Noel Cressie
The position supervises the following positions:	None
Other Key Contacts:	Professor David Steel, Director NIASRA Professor Jacqui Ramagge, Head of School Researchers in collaborating organisations

Key Relationships:

Contact/Organisation:	Purpose & Frequency of contact
Research partners involved in projects	Coordination of research plans and activities
School of Mathematics and Applied Statistics	For financial, administrative and technological support as required
Office of Research	As required for administration and reporting

Key Challenges:

1. Ensuring timely and effective completion of research projects by provision of innovative statistical-computing solutions for leading-edge research involving very large to massive datasets and simulations.
2. Ensuring a balance of activities to maximise research quality, research outputs (e.g. publications) and solve challenging technical problems.
3. Working with a variety of people at different levels among the research partners.

SELECTION CRITERIA - Knowledge & Skills:

Essential:

- Demonstrated strong research activity and track record in an area of statistics compatible with undertaking research in statistical-computing methods for spatio-temporal data and environmental informatics.
- Ability to undertake complex analysis of large-scale datasets.
- Ability to effectively translate the outcomes of the fundamental research of a statistical research program into open-source software and develop an associated website where software and datasets are made available.
- Strong organisational skills.
- Strong written and oral communication skills, including formal report writing skills and preparation of manuscripts for publication in academic journals in a timely manner.
- The ability to complete projects and write up the results in publishable form.

SELECTION CRITERIA - Education & Experience:

Essential:

- A PhD in a relevant field of statistics or related area.
- Experience in undertaking statistical research involving high-level statistical computing.
- Experience in writing up the results of statistical projects, including research and/or consultancy projects.

Personal Attributes:

Timely, proactive, independent, approachable and enthusiastic.

- The appointee will be expected to work as an integral part of a team. This will require substantial interpersonal skills, and a willingness to share ideas and experiences.
- Good organisational ability.
- High ethical and professional standards.

Special Job Requirements:

N/A

Approval:

Approved by Head of Unit: _____

Date: _____

Approved by Human Resources: _____

Date: _____

POSITION CLASSIFICATION STANDARD - Teaching and Research
Level: C
Title: Senior Lecturer

Description

A position classification standard describes the broad categories of responsibility attached to academic staff at different levels. The standards are not exhaustive of all tasks in academic employment, which is by its nature multi-skilled and involves an overlap of duties between levels. Therefore the standards should not be applied mechanistically. Quality of performance is the principal factor governing level of appointment of individuals, and a broadly-worded skill base is set out for each level.

All levels of academic staff can expect to make a contribution to a diversity of functions within their institutions. Such functions include teaching research participation in professional activities and participation in the academic planning and governance of the institution. The balance of functions will vary according to level and position and over time.

- General Standard
- Specific Duties
- Skill Base

General Standard

A Level C academic is expected to make significant contributions to the teaching effort of a department, school, faculty or other organisational unit or an interdisciplinary area. An academic at this level is also expected to play a major role in scholarship, research and/or professional activities.

Specific Duties

Specific duties required of a Level C academic may include

- The conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions.
- Initiation and development of course material.
- Course co-ordination
- The preparation and delivery of lectures and seminars.
- Supervision of major honours or postgraduate research projects.
- Supervision of the program of study of honours students and of postgraduate students engaged in course work.
- The conduct of research.
- Significant role in major research projects, including, where appropriate, leadership of a research team.
- Involvement in professional activity.
- Consultation with students.
- Broad administrative functions.
- Marking and assessment.
- Attendance at departmental and/or faculty meetings and a major role in planning or committee work.

Skill Base

A Level C academic will normally have advanced qualifications and/or recognised significant experience in the relevant discipline area. A position at this level will normally require a doctoral qualification or equivalent accreditation and standing. 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 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.