Australian National University

Position Description

College/Division:	ANU College of Science
Faculty/School/Centre:	Research School of Earth Sciences
Department/Unit:	Climate and Fluid Physics
Position Title:	Postdoctoral Fellow in Ocean Modelling
Classification:	Academic Level A
Position No:	
Responsible to:	Research Fellow, Climate and Fluid Physics
Number of positions that report to this role:	
Delegation(s) Assigned:	

PURPOSE STATEMENT:

The Research School of Earth Sciences is Australia's leading academic program in Earth and Marine Science, and 9th ranking in the 2018 QS world rankings by discipline. Our research agenda covers all aspects of the earth system, from climate change through to deep earth processes; from the distant past to future projections. We take pride in pursuing fundamental research questions, in our high-quality research, and in the impact of that research upon society.

The position is funded by the Australian Research Council Discovery Project, 'Risks of rapid ocean warming at the Antarctic continental margin', which aims to use high resolution ocean - sea ice models to examine mechanisms for warming of Antarctic continental shelf waters via both large-scale drivers and fine-scale processes. The Discovery Project is funded for 2019-2022 and represents a collaboration between investigators at ANU, UNSW and GFDL, Princeton. The position aims to better understand the oceanic processes, which control the delivery of heat to Antarctica's continental shelf and adjacent ice shelves. Research foci may include, but not be limited to: (1) local and remote forcing (e.g. winds, variability, surface warming and freshening) of warming waters; (2) mechanisms governing shelf water intrusions (e.g. eddies, coastal-trapped waves, bottom flows, tides); and (3) feedbacks between Antarctic ice melt and the regional and global overturning circulation. The position may include playing a role in the development of regional Antarctic high resolution ocean-sea ice models for better resolving processes on the Antarctic continental shelf and slope.

We provide a supportive and enriching workplace for Early Career Researchers. In particular, we have a strong commitment to equity, diversity and inclusion.

POSITION DIMENSION AND RELATIONSHIPS:

The Postdoctoral Fellow will work closely with the team of academic and technical staff members within the Climate and Fluid Physics group. They will also liaise and collaborate with UNSW and GFDL partners to improve our understanding of Southern Ocean dynamics at fine resolution

Role Statement:

In their role as an Academic Level A the Postdoctoral Fellow is expected to:

1. Undertake independent research into Antarctic oceanography, and generate journal publications and conference submissions from the research.
2. Supervise and mentor students working on individual or group projects at undergraduate, honours and postgraduate levels.
3. Promote research and teaching links across ANU in the areas of ocean and climate science.
4. Collaborate with senior staff to actively seek and secure external funding, assist to prepare and submit research proposals to external funding bodies as appropriate.
5. Maintain involvement in professional activities including attendance at relevant national and international conferences, as required.

6. Administrative functions primarily connected with his/her area of research.
7. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.
8. Other duties as required that are consistent with the classification of the position.

Skill Base

A Level A academic will work with the support and guidance from more senior academic staff and is expected to develop their expertise in teaching and research with an increasing degree of autonomy. A Level A academic will normally have completed four years of tertiary study or equivalent qualifications and experience and may be required to hold a relevant higher degree.

A Level A academic will normally contribute to teaching at the institution, at a level appropriate to the skills and experience of the staff member, engage in scholarly, research and/or professional activities appropriate to their profession or discipline, and undertake administration primarily relating to their activities at the institution. The contribution to teaching of Level A academics will be primarily at undergraduate and graduate diploma level.

SELECTION CRITERIA:

Academic Level A

1. Completion of Ph.D. in physical oceanography, climate science, geophysical fluid dynamics or other relevant field, such as physics or mathematics as evidenced by a record of publications and independent research of a high international standard.
2. Experience in ocean modelling, and Antarctic coastal or Southern Ocean research is desirable, but not essential.
3. Experience in analysing output from numerical models of the climate system, with high-level expertise in programming (e.g. Fortran, Python) and High Performance Computing.
4. Proven ability for problem solving and for independent research, as well as to work collaboratively and to contribute significantly to a research project. An ability to mentor research students in the field of expertise.
5. Well-developed communication skills, both written and oral, to communicate research output in publications and at conferences, and to establish research networks with colleagues, staff members and students.
6. A demonstrated understanding of equal opportunity principles and a commitment to their application in a university context.

Supervisor Signature:		**Date:**	26/8/19
Printed Name:	Adele Morrison	**Uni ID:**	U3367669

References:
Academic Minimum Standards

Australian National University

Pre-Employment Work Environment Report

College/Div/Centre	Science	**Dept/School/Section**	RSES
Position Title	Postdoctoral Fellow in Ocean Modelling	**Classification**	Academic Level A
Position No.		**Reference No.**	

In accordance with the Work Health and Safety Act 2011 (Cth) the University has a duty to provide a safe workplace.

- This form must be completed by the Supervisor of the advertised position and forwarded with the job requisition to Recruitment and Appointments Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment hazards prior to application.

- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see Health Surveillance Procedure
- Enrolment on relevant Work, Health and Safety (WHS) training courses should also be arranged – see WHS Training & Induction
- Consideration should be given as to whether 'Regular' hazards identified below should be listed as 'Essential' in the Selection Criteria

Potential Hazards

- Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

TASK	regular	occasional	TASK	regular	occasional
keyboarding	☒	☐	laboratory work	☐	☐
lifting, manual handling	☐	☐	work at heights	☐	☐
repetitive manual tasks	☐	☐	work in confined spaces	☐	☐
catering / food preparation	☐	☐	noise / vibration	☐	☐
fieldwork & travel	☐	☐	electricity	☐	☐
driving a vehicle	☐	☐			
NON-IONIZING RADIATION			**IONIZING RADIATION**		
solar	☐	☐	gamma, x-rays	☐	☐
ultraviolet	☐	☐	beta particles	☐	☐
infra-red	☐	☐	nuclear particles	☐	☐
laser	☐	☐			
radio frequency	☐	☐			
CHEMICALS			**BIOLOGICAL MATERIALS**		
hazardous substances	☐	☐	microbiological materials	☐	☐
allergens	☐	☐	potential biological allergens	☐	☐
cytotoxics	☐	☐	laboratory animals or insects	☐	☐
mutagens/teratogens/ carcinogens	☐	☐	clinical specimens, including blood	☐	☐
pesticides / herbicides	☐	☐	genetically-manipulated specimens	☐	☐
			immunisations	☐	☐

OTHER POTENTIAL HAZARDS (please specify):

Supervisor's Signature:		**Print Name:**	Adele Morrison	**Date:**	26/8/19