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

Position Title: Research Fellow Level: B

Faculty/Division: Engineering and Information Sciences

Department/Location: School of Mechanical, Materials and Mechatronics

Primary Purpose of the Position:

To conduct research on application on Electron Back Scattering Diffraction to study steels and Ni-Fe alloys in order to support the research projects lead by Prof. Pereloma. To conduct the development of new methodologies and modelling for a better understanding of relevant material behaviour.

Position Environment:

Prof. Pereloma conducts research within Engineering Materials Research Strength in the area of physical metallurgy of steels and alloys. This research is supported by various funding sources including the funding from ARC on LP "New insights on the role of microalloying in high strength steels", DP "Advanced high strength steels produced by energy efficient direct strip casting" as well as from the Research Strength funds. This position will support these projects focussing on the advanced characterisation techniques for microstructure and texture analysis coupled with modelling.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Conduct research on phase transformation characterisation in strip cast DP and TRIP steels using EBSD.	Develop methodology for in-depth crystallography analysis of EBSD data.	
2.	Conduct research on the mechanical behaviour of TRIP steels during uniaxial tension tests.	Correlate EBSD results with EVPSC modelling predictions.	
3.	Conduct research on dynamic recrystallisation of Ni-Fe-Nb-C alloy	Gain in-depth understanding of DRX as a function of strain and strain rate.	
4.	Produce or contribute to the publications from your research.	As a minimum 2 journal papers per annum	
5.	Coordinate the activities of technical staff and, where appropriate, postgraduate and undergraduate students	To ensure tasks are completed in timely manner. Provide training as required.	
6.	Collaborate with external partners on the grants	Attend project meetings and present the results.. Provide timely exchange of information/ideas.	
7.	Administrative functions primarily connected with the research responsibilities.	To ensure administrative functions are completed in a timely manner.	
8.	Observe principles and practices of Equal Employment	To ensure fair treatment in the	

	Opportunity	workplace	
9.	Have WH&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 of Physical Metallurgy
The position supervises the following positions:	Casual staff, postgraduate and undergraduate students, as required
Other Key Contacts:	Dr Azdiar Gazder- EBSD specialist at EMC, other team members

Key Relationships:

Contact/Organisation:	Purpose & Frequency of contact
Professor of Physical Metallurgy/MMM/EMI	Supervisor, daily
FEGSEM/EBSD specialist/UOW EMC	Consultation, bi-weekly

Key Challenges:

1. Design of experiments and problem solving.
2. Data analysis.
3. Effective communication of results both in written and oral forms.

SELECTION CRITERIA - Knowledge & Skills:

Essential:

- Fundamental knowledge of physical metallurgy, in particular, steel research;
- Demonstrate skills in Scanning Electron Microscopy and Electron Back Scattering Diffraction
- Demonstrate experience in modelling using VPSC and EPSC models
- Demonstrate an ability to conduct research in an independent manner and good interpersonal skills

SELECTION CRITERIA - Education & Experience:

Essential:

- Completion of PhD in Materials Engineering or Science.

Personal Attributes:

Keen researcher, good problem solving skills, well organised

Special Job Requirements:

- Must adhere to safe work and laboratory practices.
- Capability and willingness to offer, within reason, flexibility in work schedule to suit the special needs of the position that may arise from time to time.

Approval:

Approved by Head of Unit: _____

Date: _____

Approved by Human Resources: _____

Date: _____

POSITION CLASSIFICATION STANDARD - Research Only

Level: B

Title: Fellow

Description

A position classification standard describes the broad categories of responsibility attached to research-only academic staff at different levels. The standards are not exhaustive of all tasks in research-only academic employment, which is by its nature multi-skilled and involves an overlap of duties between levels. The standards provide an adequate basis to differentiate between the various levels of employment and define the broad relationships between classifications.

Progression through an academic career will normally be based on research, teaching, administrative functions and contribution to the profession. The balance of functions will vary according to level and position over time. It is only in exceptional circumstances that promotion would be solely on the research only position classification standards.

- General Standard
- Specific Duties
- Skill Base

General Standard

A Level B research-only academic is expected to carry out independent and/or team research within the field in which he/she is appointed and to carry out activities to develop his/her research expertise relevant to the particular field of research

Specific Duties

Specific duties required of a Level B research-only academic may include

- The conduct of research either as a member of a team or independently, and the production of conference and seminar papers and publications from that research.
- Supervision of research-support staff involved in the staff members' research.
- Guidance in the research effort of junior members of research-only academic staff in his/her research area.
- Contribution to the preparation, or where appropriate individual preparation, of research proposal submissions to external funding bodies.
- Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise.
- Administrative functions primarily connected with his/her area of research.
- Occasional contributions in the teaching program within the field of the staff member's research.
- Co-supervision, or where appropriate supervision, of major honours or postgraduate research projects within the field of the staff member's area of research.
- Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental and/pr faculty meetings and/or membership of a limited number of committees.

Skill Base

A Level B research-only academic will normally have completed a doctoral qualification or have equivalent qualifications or research experience. In addition he/she may be expected to have had post-doctoral research experience which has resulted in publications, conference papers, reports or professional or technical contributions which give evidence of research ability.