

POSITION DESCRIPTION

Academic Positions

(In addition to the Position Classification Standards)

Position Title: Associate Research Fellow / Research Fellow Marine Manufacturing

Level: A/B

Faculty/Division: Engineering and Information Sciences

Department/Location: School of Mechanical, Materials and Mechatronics Engineering

Primary Purpose of the Position:

To undertake research into the sustainment of Naval platforms. The primary activities will involve assessment and weld repair of high strength steels and development of appropriate procedures and processes.

Position Environment:

The position will support the ongoing research into the manufacture and sustainment of defence infrastructure. The activity is part of the substantial program of research in materials and manufacturing funded by DMTC* and ITTC*.

Major Accountabilities/Responsibilities:

| Responsibilities | Outcome |
|--|---|
| 1. Identify critical repair requirements for submarine hull structures | Target specific area of research |
| 2. Clearly define material requirements and operational constraints | Scope of investigation defined |
| 3. Develop experimental program as agreed between partner investigator (ASC) and UOW Chief Investigator | Experimental program defined |
| 4. Supervise PhD student to undertake experimental work | Student outcomes maintained |
| 5. Report quarterly to CI and end user on progress of investigation. See key relationships below. | Project management |
| 6. Coordinate activities between PhD student and industry. Produce quarterly status reports for CI, ASC Supervisor and ITTC Working Group | Regular report |
| 7. Produce final report and supervise PhD thesis submission | Final report, PhD submitted |
| 8. Supervisory roles: Communicate and consult with staff on workplace and staffing matters. | To foster direct relationships with staff and enhance engagement with the organisation. |
| 9. Observe principles and practices of Equal Employment Opportunity | To ensure fair treatment in the workplace |
| 10. 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.
- Retain the confidentiality of information as required

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: | Chief Investigator ITTC (A/Prof Huijun Li) |
| The position supervises the following positions: | PhD student |
| Other Key Contacts: | CI's Dr S.VanDuin, EProf J. Norrish, Partner Investigator, Industry Supervisor |

Key Relationships:

Contact/Organisation:

Director of ITTC (Dr J.Binns)
CI's Above
ASC Supervisor
DSTO

Purpose & Frequency of contact

Project Progress Reporting Quarterly
Weekly Liaison, technical support, research progress
Monthly, advice, support and project progress
Technical discussions, as required

Key Challenges:

1. Ensure adequate research definition, scope, constraints, objectives and technical requirements established
2. Conduct experimental trials (with PhD student)
3. Analyse results and produce recommendations and report
4. Maintain on going contact with ASC

SELECTION CRITERIA - Knowledge & Skills:

Essential:

- Thorough knowledge of the weldability of high strength, thermo mechanically treated steels.
- Relevant welding processes and procedures adopted for high strength, thermo mechanically treated steels.
- Experience of the experimental techniques which may be applied to such structures; including optical and electron metallography, mechanical testing, thermo-mechanical simulation.

SELECTION CRITERIA - Education & Experience:

Essential:

- PhD in materials area – preferably with a significant welding component.
- Experience in weldability testing.
- Competent in metallography of steels.
- Experience of mechanical testing.

Desirable:

- Experience in automated welding and monitoring.
- Experience with 'Gleeble' thermo-mechanical simulation.

Personal Attributes:

You should be able to work in a team involving colleagues and external bodies. You must possess good communication skills and an ability to present technical details to a wide audience. In order to meet the security clearance requirements of the position the candidate is likely to need Australian Citizenship.

Special Job Requirements:

Most of the research will be conducted at UOW in Wollongong but you will be required to spend a period in either ASC or DSTO (Adelaide and Melbourne) for a period of around 12 months. This may take the form of several short term placements.

POSITION CLASSIFICATION STANDARD - Research Only

Level: A

Title: Associate 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 A research-only academic is expected to contribute towards the research effort of the institution, and to develop her/his research expertise through the pursuit of defined properties relevant to the particular field of research.

Specific Duties

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

- The conduct of research under limited supervision either as a member of a team or, where appropriate, independently, and the production or contribution to the production of conference and seminar papers and publications from that research.
- Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise.
- Limited administrative functions primarily connected with the area of research of the academic.
- Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff.
- Occasional contributions to teaching in relation to his/her research project(s).
- Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures.
- 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.
- Advice within the field of the staff member's research to postgraduate students.
- A Level A research-only academic shall work with support, guidance and/or direction from staff classified at Level B and above and with an increasing degree of autonomy as the research academic gains in skill and experience.

Skill Base

A Level A research-only academic will normally have completed four years of tertiary study in the relevant discipline or have equivalent qualifications or research experience. In many cases a position at this level will require an honours degree or higher qualifications or equivalent research experience. Research experience may have contributed to or resulted in publications, conference papers, reports or professional or technical contributions which give evidence of research potential.

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.