

POSITION DESCRIPTION

Academic Positions

(In addition to the Position Classification Standards)

Position Title:	Materials Welding and Joining	Level:	C/D
Faculty/Division:	Engineering & Information Sciences	Department/Location:	School of MMM Engineering

Primary Purpose of the Position:

The appointee will conduct research into welding and welding processes, including obtaining financial support for the research work from government and/or industry sources. The appointee will also teach some undergraduate/postgraduate subjects in materials engineering as specified by the Head of School.

Position Environment:

The School of Mechanical, Materials and Mechatronic Engineering, which is one of the top 10 Engineering Schools in Australia, is committed to research and teaching excellence through its world-class undergraduate and postgraduate programs in a range of exciting technological areas.

Our teaching programs are designed to provide undergraduate and postgraduate students with up to date and high quality training in both the foundations of engineering science and the application of the latest techniques and practices used throughout industry. We pride ourselves on giving our students a comprehensive education program that is not only relevant to the needs of both industry and the engineering profession with an international focus, but also provides them with life long learning attributes for a wide range of careers.

One of the strengths of the School is the high number of collaborative links with industries within our local region and also nationally and internationally. As a result, we have an extremely strong track record in developing collaborative research programs with industry and in attracting competitive grants from governmental and industrial sources. The research strengths of our school received the research ranking of “**above world standard**” in the recent Australian Research Council (ARC) ERA (Excellence in Research for Australia) initiative. Our research ranking of “**well above world standard**” in “Interdisciplinary Engineering” is also worth mentioning.

Currently we have a number of significant research programs and projects associated with the Faculty including: the Engineering Materials Institute (including the BlueScope Steel Metallurgy Centre); the Intelligent Polymer Research Institute (and associated ARC Centre of Excellence in Electromaterials Science); Institute for Superconducting and Electronic Materials (ISEM); the SMART Infrastructure Research Facility (>\$50m); the Energy Pipelines Cooperative Research Centre (EPCRC) \$17.5m; the Retrofitting for Resilient and Sustainable Buildings (RRSB) \$25m; the Defence Materials Research Centre (DMTC) and many other exciting fundamental, applied and commercial research projects.

You will provide research leadership and support to the Faculty of Engineering and Information Sciences and specifically to the Engineering Manufacturing (a University Research Strength). You will: be responsible for obtaining external funding for welding research; publish research findings in high quality journals, conference proceedings and other areas; participate in commercialisation of research outcomes, where appropriate; supervise higher degree research students; and contribute to research management. You will also make a substantial contribution to the research activity of the Defence Materials Technology Centre (DMTC) node at the University of Wollongong. Also carry out administrative duties of the School and Faculty.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Initiate, conduct and support research activities in physical metallurgy, specifically in welding and welding technologies	Peer reviewed journal publications in high quality international journals; external grant funding from government and industry sources.	
2.	Make a substantial contribution to the research activity of the Defence Materials Technology Centre (DMTC) node at the University of Wollongong.	Successful completion of DMTC projects; initiate new DMTC research activities.	
3.	Supervise postgraduate candidates	On-time completion of PhD and Masters theses that satisfy University examination processes.	
4.	Teaching of undergraduate subjects in materials engineering as appropriate	Providing high quality teaching of selected materials engineering subjects	
5.	Administrative duties as specified by the Head of School	On-time completion of assigned tasks to an acceptable standard	
6.	Supervisory roles: Communicate and consult with staff on workplace and staffing matters.	To foster direct relationships with staff and enhance engagement with the organisation.	Ongoing
7.	Observe principles and practices of Equal Employment Opportunity	To ensure fair treatment in the workplace	
8.	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.	

Reporting Relationships:

Position Reports to:	Professor Gursel Alici, Head of School
The position supervises the following positions:	
Other Key Contacts:	A/Professor Huijun Li Discipline Advisor (Materials Engineering) Dean of Engineering and Information Sciences Faculty Managers

Key Relationships:

Contact/Organisation:

Materials Engineering Discipline
School of Mechanical, Materials & Mechatronic Engineering
Faculty of Engineering and Information Sciences

Purpose & Frequency of contact

Quarterly meetings
Quarterly School meetings; Assessment Committee meetings;
School Safety Committee meetings
Quarterly meetings

Key Challenges:

1. Maintain and promote external funding for research
2. Manage welding and joining research activities.
3. Publish research findings in high quality international journals.
4. Ensure that research outcomes are utilised effectively for the betterment of industry and society.
5. Maintain a high level of research productivity with large numbers of publications in high impact factor journals
6. Help maintain an enthusiastic and productive collegial environment

SELECTION CRITERIA - Knowledge & Skills:

Essential:

- Extensive welding engineering research experience and an outstanding research track record.
- Thorough knowledge and research experience in physical and mechanical metallurgy, weldability and welding processes, with an emphasis on steel.
- Understanding of processing-microstructure-property relationships in steels.
- Demonstrated ability to win research funding.
- Demonstrated ability to teach undergraduate and postgraduate materials and welding engineering subjects to a high standard.
- Excellent communication and team work skills appropriate to a multidisciplinary, higher education environment.

SELECTION CRITERIA - Education & Experience:

Essential:

- PhD (or equivalent qualifications and experience) in welding technology, materials engineering/materials science in a welding-related area.
- Experience in weldability, welding engineering and joining process research.
- Experience in collaborative research with industry.

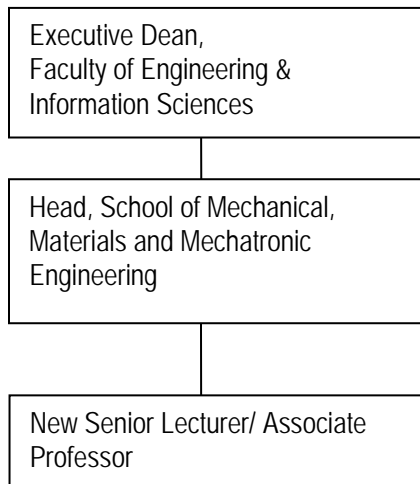
Personal Attributes:

- Excellent time management skills
- Ability to negotiate with research clients at all levels
- Flexibility and adaptability in a wide range of teaching requirements
- Understanding of international student needs
- Capacity to develop links with professional networks and the industrial community

Special Job Requirements:

- The position may involve working on projects funded by or for the Department of Defence or may be subject to other information security restrictions. As such there may be a need to obtain a security clearance prior to commencing particular tasks or prior to having access to specific projects. Failure to obtain a security clearance where it is required for a particular project will result in a reassignment to a different project not requiring such a security clearance.

Organisational Chart:



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.



POSITION CLASSIFICATION STANDARD - Teaching and Research

Level: D

Title: Associate Professor

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 D academic is expected to make a significant contribution to all activities of the organisational unit or interdisciplinary area and play a significant role within their profession or discipline. Academics at this level may be appointed in recognition of distinction in their disciplinary area.

Specific Duties

Specific duties required of a level D academic may include

- The conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions .
- The development of and responsibility for curriculum/programmes of study.
- 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, including, where appropriate, leadership of a major research team.
- Significant contribution to the profession, and/or discipline.
- High level administrative functions.
- Consultation with students.
- Marking and assessment.
- Attendance at departmental and faculty meetings.

Skill Base

A Level D academic will normally have the same skill base as a Level C academic. In addition there is a requirement for academic excellence which may be evidenced by an outstanding contribution to teaching and/or research and/or the profession.