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

Position Title:	Associate Research Fellow	Level:	A
Faculty/Division:	Faculty of Engineering and Information Sciences		
Department/Location:	Centre for Medical Radiation Physics (CMRP)		
	School of Physics		

Primary Purpose of the Position:

The position has been established to fulfil research in the field of radiation therapy, in particular in a field of heavy ion therapy and related to that research on microdosimetry in close collaboration with ANSTO and international partners Heidelberg ion therapy centre, Germany and HIMAC , Japan.

Position Environment:

The position is within the Centre for Medical Radiation Physics (CMRP).

The main research directions at CMRP are:

- Dosimetry and modelling related to cancer patient radiation therapy
- Dosimetry of IMRT and Brachytherapy
- Semiconductor radiation detectors for medical and HEP applications
- Semiconductor radiation dosimetry for different oncology modalities including diagnostic radiology
- Radiation instrumentation development for medicine and other applications (clinical radiotherapy semiconductor dosimetry, film dosimetry and imaging, PET, SPECT, security)
- Monte Carlo radiation transport simulations based on different radiation transport codes
- Microdosimetry and nanodosimetry for space radiation and hadron therapy
- Microbeam Radiation Therapy on Synchrotron and Magneto-Radiotherapy
- Targeted Nano-Therapies

CMRP has radiation physics detector and imaging laboratories and is equipped with IDL and dose planning PINNACLE computers. It also has ECLIPSE proton therapy TPS, CT scanner and a gamma camera on the campus for teaching and research.

CMRP is involved in extensive research collaborations with leading radiation medical physics centres and radiation facilities in the USA, Europe and Asia. Industrial collaboration is integral to CMRP.
This position is partially funded via a internal support from UOW and ANSTO.
The Post Doctoral Fellow is expected to carry out research in close collaboration with ANSTO on innovative radiation detectors for heavy ion therapy quality assurance.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Provide a flexible, co-ordinated, efficient and effective framework of collaboration between universities and ANSTO.	Evidence of stronger links and more research outcomes based on a joint input CMRP and AANSTO.	
2.	Provide direct support and supervision of UOW students involved in a project.	Evidence of research outcomes and thesis quality	
3.	Preparation and participation in experiments on heavy ion therapy facilities o/s.	Collecting experimental results and providing technical report	
4.	Take active part in experimental program on microprobe at ANSTO.	To carry out experiment on IBIC in collaboration with students and ANSTO staff	
5.	Participation in preparation of technical reports and scientific articles related to the project.	Active contribution in preparation of joint grant applications and publication preparation as a result of joint research.	
6.	Assist in the drafting of ethics and research applications.	Preparation of application for national and international granting bodies.	
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.

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:	Director of CMRP, Prof A. Rozenfeld and Head of the Detector Group at ANSTO Dr Mark Reinhard (when at ANSTO).
The position supervises the following positions:	N/A
Other Key Contacts:	Administration Officer of CMRP Mrs Sonny Spargo sonny@uow.edu.au.ad and Head of School A/Prof M .Lerch mlerch@uow.edu.au

Key Relationships:

Contact/Organisation:	Purpose & Frequency of contact
Staff of ANSTO, Detector Group	Research and Development, 50%
CMRP, School of Physics	Research and Development, 50%

Key Challenges:

1. To actively conduct research on development in heavy ion therapy between the University of Wollongong and ANSTO. This work will be predominantly carried out at CMRP and ANSTO under direction of Prof Anatoly Rozenfeld in collaboration with other researchers from ANSTO detector group. At ANSTO industrial supervision will be done by Dr Mark Reinhard.

    - provide a flexible, co-ordinated, efficient and effective framework of collaboration between CMRP at the University of Wollongong and ANSTO
    - provide direct support and supervision of academic research activities in microdosiemtry and related field.
    - engage and support translational research activities in quality assurance in HIT.

2. Collate, analyse and present results of study at relevant scientific meetings and in peer-reviewed journal publications.

SELECTION CRITERIA - Knowledge & Skills:

Essential:

- Radiation Detection and Microdosimetry and radiation transport modelling in Radiation Therapy.
- Research background related to radiation semiconductor detectors studies.
- Research in multidisciplinary environment.

Desirable:

- Previous experience in Radiotherapy Physics and particular in C-12 therapy.
- Previous experience in medical radiation physics research.
- Previous experience in development of radiation dosimetry/detection instrumentation.

SELECTION CRITERIA - Education & Experience:

Essential:

- Hold an Honours or equivalent degree in either physics, mathematics, engineering or computer science (with strong Physics and Maths content).
- Hold or submitted for examination a relevant PhD degree or equivalent in Physics/Engineering.
- Ability to work in experimental radiation physics research and detectors.
- Have experience in advanced scientific computer programming.
- Have experience in working with a team on medical accelerator facility.

Desirable:

- PhD in medical radiation physics.
- Excellent written and oral communication skills.
- Experience in dosimetry analysis software development.
- Experience in advanced programming and statistical analysis.
- Demonstration of relevant publications in medical radiation physics discipline.
- Demonstrated publications in microdosimetry field.

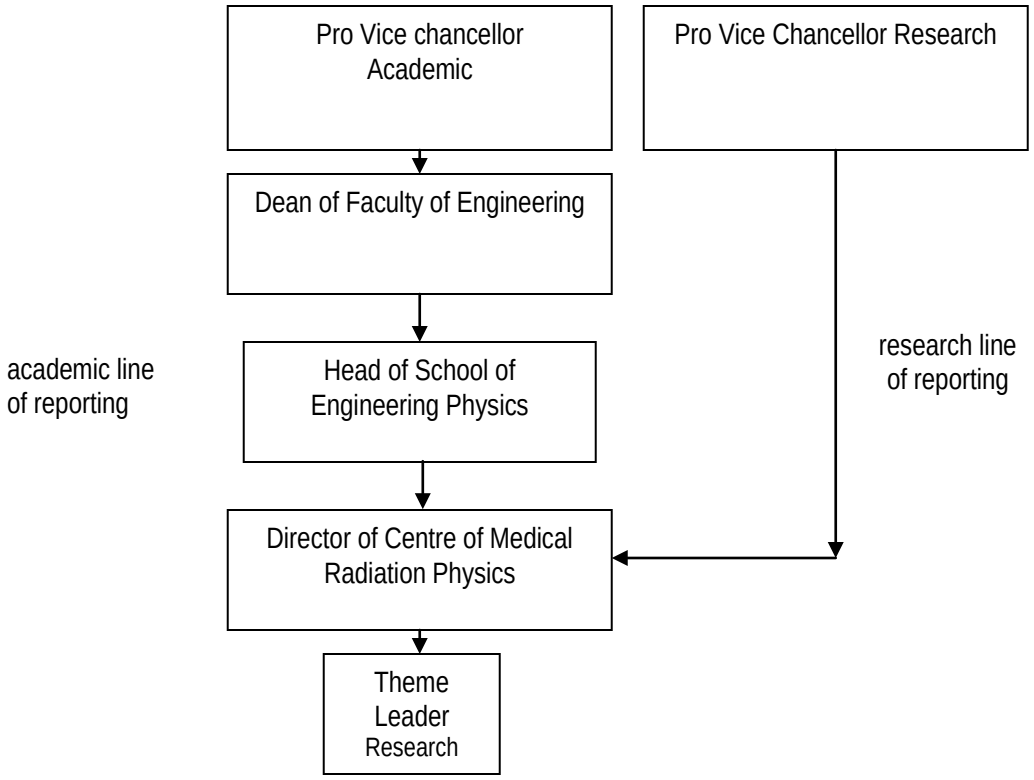
Personal Attributes:

- Ability to work independently to a deadline
- Ability to work co-operatively with all members of the CMRP at UOW and ANSTO detector group team
- Ability to develop relationships with other group members regarding research activity to provide an environment which fosters collaboration and cross fertilisation of ideas, resource sharing and achievement.

Special Job Requirements:

- Comply with relevant Workplace Health & Safety policies and procedures.
- Participate, when relevant, in recruitment of required data from clinical centres including involvement in obtaining informed consent and/or ethics approval.
- Comply with the smoke free environment policy.
- Comply with all conditions as set down in the code of conduct.

Organisational Chart:



Approval:

Approved by Head of Unit: _____

Date: _____

Approved by Human Resources: _____

Date: _____

UNIVERSITY OF WOLLONGONG

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.