UNIVERSITY OF WOLLONGONG

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

Position Title:	Lecturer
Level:	B
Faculty/Division:	Engineering and Information Sciences/School of Physics
Department/Location:	Centre for Medical Radiation Physics (CMRP) School of Physics, University of Wollongong

Primary purpose of the position:

The position has been established to fulfil research in the field of radiation therapy, in particular developing network research and training links between the University and a collaborating hospital. The position is partially supported by a Better Access to Radiation Oncology (BARO) (Commonwealth) Grant and the St George Cancer Care Centre (Kogarah Sydney).

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 successful BARO grant through strong collaboration between CMRP, and other University groups in Australia. In particular University of Sydney is the Administering University for this grant (i.e. Prof David Thwaites). The Post Doctoral Fellow is expected to be part of the Network Leaders program and this will include

quarterly meetings with other university members of this group. This research will result in advanced brachytherapy dosimetry including LDR and HDR brachytherapy for improvement of quality assurance of brachytherapy procedures .

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Provide a flexible, co-ordinated, efficient and effective framework of collaboration between universities and the radiation oncology physics department at St George Hospital.	Evidence of stronger links and more research outcomes from Hospital based clinical development and research projects at St George Hospital Based on CMRP input.	
2.	Provide direct support and supervision of academic research activities and other university-linked education and training for clinical registrars and for Medical Physics students in the clinical setting.	Evidence of documented training and research outcomes	
3.	Engage and support practicing ROMPs in direct and translational research activities and to collaborate/participate in that, thereby supporting the overall capacity, development and effectiveness of the ROMP workforce.	Evidence of project work which helps enable developmental projects in the clinic	
3.	Take active part in experimental phantom studies with dosimetry and image guidance systems utilised in brachytherapy and or external beam radiotherapy	To carry out experiment with a prototype of dosimetry instrumentation for dose measurements in brachytherapy(mostly), IMRT and or IGRT	
4.	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.	
5.	Assist in the drafting of ethics and research applications	Preparation of application for national and international granting bodies.	
6.	Observe principles and practices of Equal Employment Opportunity	To ensure fair treatment in the workplace	
7.	Adhere to principles & practices of OH&S	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 the Radiation Oncology Medical Physics theme leader Prof P. Metcalfe and Chief of Medical Physics at St George CCC
The position supervises the following positions:	N/A
Other Key Contacts:	Administration Officer of CMRP Mrs Karen Ford kford@uow.edu.au. and Dr Joseph Bucci , St George CCC

Key Relationships:

Contact/Organisation:	Purpose & Frequency of contact
Staff of St George Hospital Medical Physics Department	Research and Development , 80%
CMRP, School of Physics, CMRP	20%

Key Challenges:

1. To actively conduct research on development of the Network link between the University of Wollongong medical radiation physics training and research programs and clinical research at St George Cancer Care Centre. This work will be predominantly carried out at St George Cancer Care Centre under the direction of chief physicist and Prof Anatoly Rozenfeld in collaboration with other researchers on the project.
   - provide a flexible, co-ordinated, efficient and effective framework of collaboration between CMRP at the University of Wollongong and the radiation oncology facility at St George Cancer Care Centre to support the capacity of the Radiation Oncology Medical Physics workforce in Australia
   - provide direct support and supervision of academic research activities and other university-linked education and training for clinical registrars and for Medical Physics students in the clinical setting
   - engage and support practicing ROMPs in direct and translational research activities and to collaborate/participate in that, thereby supporting the overall capacity, development and effectiveness of the ROMP workforce.
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 Dosimetry and or radiation transport modelling in Radiation Therapy
- Clinical Research background related to EB radiotherapy and/or brachytherapy
- Research in multidisciplinary environment

Desirable:

- Previous experience in Radiotherapy Physics, Treatment Planning Systems and brachytherapy.
- Previous experience in medical radiation physics research.
- Previous experience in development of radiation dosimetry/detection instrumentation for brachytherapy including semiconductor dosimetry.

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 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 clinical team in a radiotherapy clinic
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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 brachytherapy and or external beam radiotherapy dosimetry applications

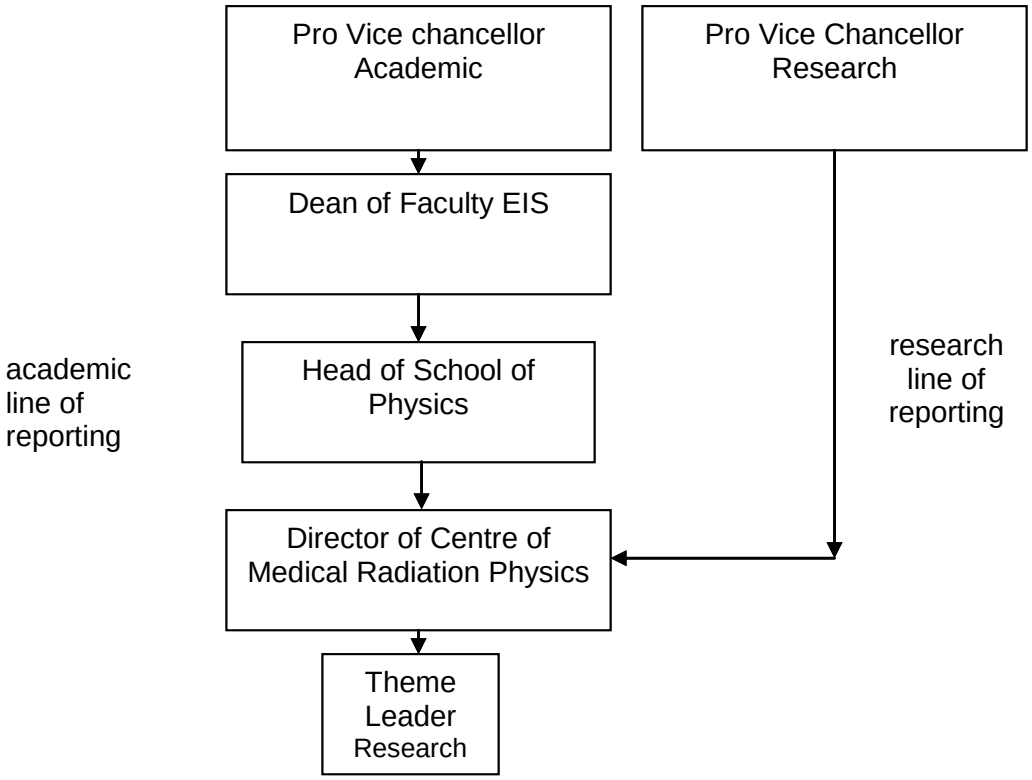
Personal Attributes:

- Ability to work independently to a deadline
- Ability to work co-operatively with all members of the St George Cancer Care Clinic, CMRP at UOW and the University medical physics course coordinators group and medical physics conjoint members appointed through other University Hospital collaborations.
- 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 - Teaching and Research

Level: B

Title: 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 B academic is expected to make contributions to the teaching effort of the institution and to carry out activities to maintain and develop her/his scholarly, research and/or professional activities relevant to the profession or discipline.

Specific Duties

Specific duties required of a Level B academic may include

- The conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions.
- Initiation and development of subject material.
- Acting as subject coordinators.
- The preparation and delivery of lectures and seminars.
- Supervision of the program of study of honours students or of postgraduate students engaged in course work.
- Supervision of major honours or postgraduate research projects.
- The conduct of research.
- Involvement in professional activity.
- Development of course material with appropriate advice from and support of more senior staff
- Marking and assessment.
- Consultation with students.
- A range of administrative functions the majority of which are connected with the subjects in which the academic teaches.
- Attendance at departmental and/or faculty meetings and/or membership of a number of committees.

Skill Base

A Level B academic shall have qualifications and/or experience recognised by the institution as appropriate for the relevant discipline area. In many cases a position at this level will require a doctoral or masters qualification or equivalent accreditation and standing. In determining experience relative to qualifications, regard is had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or to technical achievement.