RMIT UNIVERSITY

Master of Medical Physics

2019
Postgraduate

Apply physical sciences, such as radiation physics, to the enhancement of diagnostic and therapeutic medicine.

Medical physicists oversee the safe use of radiation and other physical phenomena for the diagnosis and treatment of cancer and other diseases.

In the Master of Medical Physics you will study a range of physical sciences with specific applications in medicine such as radiotherapy and imaging. A strong emphasis will be placed on the protection of workers, patients and staff from harmful effects of radiation.

You will develop the skills to critically evaluate and optimise the performance of medical equipment and procedures. You will use your problem-solving abilities to analyse outputs, diagnose problems and provide quality assurance for patient treatments.

With initiative and a high degree of independence, you'll be instrumental in the evaluation and implementation of new technologies and in the translation of research into professional practice.

You'll become an important advisor to a team of professionals including oncologists, radiologists, therapists, technologists, and biomedical engineers.

Career outlook

Qualified Medical Physicists are highly sought after in Australia and world-wide due to the expansion of radiation oncology and medical imaging facilities and services.

RMIT graduates in the areas of medical physics, radiation and health physics are employed in the fields of:

- radiotherapy
- medical imaging
- nuclear medicine
- radiation protection
- mining and prospecting
- government regulatory agencies
- associated research activities of non-hospital institutions.

Learning and teaching

Your learning experiences will contain a broad mix of study modes including lectures, seminars, workshops and weekly classes, using face-to-face, online and other flexible delivery mechanisms.

Professional recognition

This program is accredited by the Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM).

To be certified as a professional medical physicist in Australia, you must complete the requirements stipulated by the ACPSEM.

Industry connections

The Master of Medical Physics at RMIT is closely linked with all major hospitals in Melbourne through teaching and research collaborations.

Courses taught in the program have been developed in consultation with practising professionals in the fields of radiotherapy, oncology, medical imaging, nuclear medicine, and radiation protection.

Your industry-integrated project will enable you to experience a workplace setting first-hand and build valuable contacts with potential future employers.

Program snapshot

Program code: MC215

Exit points

After completing 96 credit points of study approved by the program manager, you may exit with a graduate diploma.

Duration

Full-time: 2 years
Part-time: 4 years

Location

City campus
NB: One course runs at Bundoora campus

Program Manager

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How to apply

Direct to RMIT University:
rmit.edu.au/programs/apply/direct

Fees

To learn how to calculate your fees visit:
rmit.edu.au/programs/fees/postgraduate

rmit.edu.au/programs/mc215

Program structure

The Master of Medical Physics consists of 192 credit points. Approximately 75 per cent (144 credit points) of the program consists of coursework components. The remaining 25 per cent (48 credit points) consists of a research project which will be assessed via a submitted thesis.

In your final year, you'll be assisted by an industry consultant (co-supervisor) and complete a project relevant to an industry or clinical setting.

Year 1	Medical Imaging Physics	Introduction to Human Biosciences	Radiobiology for Medical Physicists	Biostatistics
	Radiation Physics and Laboratory	Programming Fundamentals for Scientists	Quantum and Nuclear Physics	Research Methods
Year 2	Research Project A (planning)		Research Project B (implementation)	
	Advanced Medical Imaging	Intro to Principles and Practice of Radiotherapy Treatment Planning	Radiotherapy Physics and Modelling	Radiation Physics and Radiation Protection

Compulsory courses

Please note: This is an example of the program structure and program electives. Courses may change and may not be available each semester.

Entry requirements

An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 (2.5 or greater is recommended) with a physics major, or in an equivalent physical science degree, having substantial physics and mathematics components.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

Credit and exemptions

If you have successfully completed one of the following qualifications majoring in physics you may be eligible for one or more exemptions as follows:

Qualification level
Bachelor degree in science with a physics major at AQF Level 7
Bachelor of Science with a physics major (Honours)

This information is designed for Australian and New Zealand citizens and permanent residents of Australia.