The Master of Medical Physics is designed for physical scientists seeking specialist knowledge and skills in the field of medical physics.

Medical physicists are employed clinically in the fields of radiotherapy, medical imaging, nuclear medicine, and in the associated research and regulatory activities of non-hospital institutions.

You’ll develop the skills to evaluate the performance of medical equipment, analyse outputs, and diagnose problems. With initiative and a high degree of independence, you will be instrumental in the evaluation and implementation of new technologies and in the translation of research into professional practice. You will become an important advisor to a team of professionals including oncologists, radiologists, therapists, technologists and biomedical engineers.

Through the completion of a research project in collaboration with an external institution, you will apply your specialised expertise to design and conduct research that addresses practical challenges facing scientists in this field.

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.

Industry connections
Medical Physics programs at RMIT University are closely linked with all major hospitals in Melbourne through teaching and research collaborations.

Courses taught in this program have been developed in consultation with practising professionals in the fields of radiotherapy oncology, medical imaging, nuclear medicine and radiation protection. Research projects are conducted with a wide range of collaborating institutions that are also the primary employers of graduates from these programs.

Career outlook
People with postgraduate training in medical physics are highly sought. Australia is experiencing an expansion of radiation oncology and medical imaging facilities and service. Growth includes construction of new treatment centres, particularly in regional centres. There is currently a national workforce shortage, which has been forecast to grow significantly in the next two decades. A postgraduate qualification such as this is mandatory to become a certified practising medical physicist in Australia.

Professional recognition
This program is accredited by the Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM) who oversee a professional accreditation program that recognises and certifies experienced medical physicists.

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

This includes:
- undergraduate Bachelor of Science (physics major and strong maths subjects) or Bachelor of Engineering (strong physics and maths subjects), or ACPSEM approved equivalents
- an ACPSEM accredited postgraduate degree in medical physics (usually masters or higher), or ACPSEM approved equivalents. You must also meet the bachelor degree requirements
- completion of the ACPSEM Training, Education and Accreditation Program (TEAP) while employed as a Medical Physics Registrar at an accredited clinical centre.
Master of Medical Physics

Program structure

The Master of Medical Physics consists of 192 credit points. After completing 96 credit points of study approved by the Program Manager, you may exit with a graduate diploma.

You’ll study courses that provide understanding of advanced physics such as radiation, electromagnetics, quantum physics, optics, photonics and nuclear physics as well as radiobiology and basic human biology, structure and function.

You’ll also study the technical aspects of medical physics in courses concerning medical imaging, radiotherapy and radiation transport modelling.

You’ll apply your knowledge in courses related to radiation physics, radiation protection, and radiotherapy dosimetry. You will also undertake a research project relevant to an industry or clinical setting, assisted by an industry consultant as a co-supervisor.

Year 1
- Optics and Radiation Physics
- Applied Physics
- Human Structure and Function
- Research Methods
- Radiotherapy Physics and Modelling
- Medical Imaging Physics
- Electromagnetics and Quantum Physics
- Photonics and Nuclear Physics

Year 2
- Radiation Physics and Radiation Protection
- Advanced Medical Imaging
- Radiotherapy Treatment Planning
- Radiobiology
- Literature Review and Project Planning
- Research Project 1
- Research Project 2

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

Application dates Semester 1, 2017
- Applications open 14 August 2016
- Timely applications close 10 November 2016

Semester 2, 2017
- Applications open 1 May 2017
- Timely applications close 31 May 2017

Late applications will continue to be accepted after this date if places are still available.

Entry requirements
An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in a physical science, biomedical engineering or equivalent, having substantial physics and mathematics components.

Applicants who have a GPA between 2.0 and 2.5 and also have a minimum of two years relevant work experience will also be eligible for consideration.

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

Exemptions
- Up to 48 credit points relating to some or all of the following courses:
  » PHYS2140, Electromagnetics and Quantum Physics
  » PHYS2141, Photonics and Nuclear Physics
  » PHYS2137, Optics and Radiation Physics
  » PHYS2138, Applied Physics

Remaining program duration
- 144 credit points (equivalent to three semesters full time study)

Credit and exemptions
Applicants with Graduate Certificate, Graduate Diploma or Master’s degree or PhD qualification majoring in physics or a related discipline may also be eligible for exemption of up to 48 credit points (equivalent to one semester full-time study).

Qualification level
- Bachelor degree in Science with a Physics Major at AQF Level 7
- Bachelor of Science with a Physics Major (Honours)

Fees (indicative)
- Commonwealth supported places (CSP) range from AU$6256 to AU$10,440 per annum
- Full-fee: AU$28,800 per annum

This program has primarily Commonwealth supported places (CSP), with a limited number of full-fee places.

Fees shown above apply to 2017 only and are based on an annual full-time study load of 96 credit points unless otherwise noted.

A proportionate fee applies for more or less than the full-time study load.

Tuition fees are adjusted on an annual basis and these fees should only be used as a guide.

For more information and to learn how to calculate your exact tuition fees see:
rmit.edu.au/programs/fees/postgraduate

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

Disclaimer: Every effort has been made to ensure the information contained in this publication is accurate and current at the date of printing. For the most up-to-date information, please refer to the RMIT University website before lodging your application. Visit www.rmit.edu.au