postgraduate coursework programs in magnetic resonance technology

As one of the most powerful diagnostic tools for organs and tissues inside the body, Magnetic Resonance Imaging demands technologists with expert scientific and technical expertise.

Magnetic Resonance (commonly known as MRI or MR) uses cutting-edge magnetic technology to create high-definition, three dimensional pictures to examine disorders such as multiple sclerosis, brain tumours and the damage caused by stroke, as well as cancer, diseases of the musculoskeletal system and metabolic disorders, such as diabetes and obesity.

Our postgraduate programs will give you an in-depth understanding of magnetic resonance technology. You will learn the physics of magnetic resonance and image formation, the components of modern MRI scanners and develop specialist practical skills essential for a dynamic career in this field.

Choose the Masters program for training in new techniques which are not yet part of standard clinical practice. You will be in a position to embark on projects that make innovative use of magnetic resonance such as assessing the needs of a radiography practice and the capability of equipment from various manufacturers to meet these needs. The program consists of core courses, electives and a research component.

UQ Advantage
You will learn from some of the leading educators in the industry who base course content and practical experience from the most recent developments in research and technology.
Career opportunities
There is currently a demand for MRI physicists, MR Technologists, image processors, engineers, and biomedical engineers within Australia and internationally. Our graduates have found employment in leadership positions in hospitals, private practice and research facilities.

Program structure
Graduate Certificate in Magnetic Resonance Technology
• 8 units (half year full-time or part-time equivalent)
  Part A – foundation courses in magnetic resonance
Graduate Diploma in Magnetic Resonance Technology
• 16 units (1 year full-time or part-time equivalent)
  Part A – foundation courses in magnetic resonance
  Part B – courses in specialist magnetic resonance technology and imaging
Master of Magnetic Resonance Technology
• 24 units (1.5 years full-time or part-time equivalent)
  Part A – foundation courses in magnetic resonance
  Part B – courses in specialist magnetic resonance technology and imaging
  Part C – research projects

Sample course list
• Functional MRI (fMRI)
• Magnetic resonance instrumentation
• Fast imaging techniques
• Fundamental MR of the brain and spine
• Cardiac MRI
• Vascular imaging
• Medical image processing and analysis

Entry requirements
Graduate Certificate in Magnetic Resonance Technology
Bachelor degree in mathematics; physics; chemistry; biology; medical imaging; medical radiation; radiography; allied health; biomedical engineering; computer science or an approved discipline. Applications on the basis of post-secondary study and two years’ work experience in a related field will be individually assessed.

Graduate Diploma in Magnetic Resonance Technology
Bachelor degree in mathematics; physics; chemistry; biology; medical imaging; medical radiation; radiography; allied health; biomedical engineering; computer science or an approved discipline. Applications on the basis of post-secondary study and two years’ work experience in a related field will be individually assessed.

Master of Magnetic Resonance Technology
Bachelor degree in mathematics; physics; chemistry; biology; medical imaging; medical radiation; radiography; allied health; biomedical engineering; computer science or an approved discipline. Applications on the basis of post-secondary study and two years’ work experience in a related field will be individually assessed.

How to apply
International applicants
Information about application procedures for international students can be found at www.uq.edu.au/international-students/application-instructions

Domestic applicants
Complete the online application form at www.uq.edu.au/study

Time of publication: Every effort has been made to ensure the accuracy of information in this document at the time of publication. The authoritative source of program and course information is the UQ Courses and Programs website at uq.edu.au/study. Where any conflict of information exists, the rules and associated course lists approved by the UQ Senate shall apply.

To progress in his career as a medical radiographer, Mark Denham undertook a Master of Magnetic Resonance Technology.
He says the degree helped him gain his new role as Magnetic Resonance Imaging (MRI) Services Manager at Nambour General Hospital where he is responsible for maintaining high clinical and administrative standards and a safe environment for staff and patients.
Mark must also keep abreast of emerging technologies and research in radiography.
He chose to do his Masters via remote electronic study through UQ’s Centre for Advanced Imaging (CAI) because of the lecturers’ broad backgrounds in radiography.
“I really wanted to broaden my education and was able to learn a lot from CAI’s radiographers, clinicians, physicists, chemists and engineers,” he says.
“Theoretical and practical knowledge gained has helped not just in the day-to-day running of an MRI unit, but also in selecting, purchasing and installing new systems.”

Mark Denham
Postgraduate Coursework in Magnetic Resonance Technology graduate