



WHEN TO APPLY?

With two intakes per year, your study options are endless. See UQ's Future Students website for admission and enrolment dates for both domestic and international candidates.

<https://future-students.uq.edu.au/apply>

FURTHER INFORMATION

The Centre for Advanced Imaging
The University of Queensland
Brisbane QLD 4072
AUSTRALIA

Phone: +61 7 3365 8263

Email: education@cai.uq.edu.au

Web: cai.centre.uq.edu.au/study

 Find us on
Facebook facebook.com/UQ.CAI

ENTRY REQUIREMENTS

Bachelor degree in applied science; nuclear medicine technology; medical imaging; chemistry; pharmacy; physics; computer science; or electrical and biomedical engineering; or an approved discipline.

ENGLISH PROFICIENCY

Non-native English speakers must meet UQ's English Language Proficiency. Please view the English proficiency policy at <http://future-students.uq.edu.au/applying/english-language-proficiency-requirements>

LOCATION

The University of Queensland, St Lucia campus or via remote online study.

DELIVERY MODE

Internal or External, requires one week on campus attendance.

TEACHING METHOD

All our programs are delivered online and on campus. All you need is a computer with reliable internet and word processing software such as Microsoft Word or Apple Pages. Masters candidates are required to have access to a MRI scanner at their workplace or at the Centre by arrangement. Course materials are delivered through Blackboard, the University's electronic learning management platform.



Create change

CENTRE FOR ADVANCED IMAGING

Graduate Certificate in Magnetic Resonance and Positron Emission Tomography (MR-PET)



108343 Oct 2017 CRICOS Provider No. 00025B

cai.centre.uq.edu.au/study

ABOUT THE CENTRE FOR ADVANCED IMAGING

The Centre for Advanced Imaging (CAI) offers a rich collaborative environment for postgraduate students providing them with skills and the latest innovative techniques in imaging technology.

CAI houses the most comprehensive and advanced range of magnetic resonance instrumentation in the southern hemisphere, including 3 and 7 Tesla whole body scanners. Complimenting these is a wide range of molecular hybrid imaging capabilities that include pre-clinical MR-PET, clinical PET-CT, and, as part of a consortium, access to Brisbane's first human MR-PET.

HEAD OF EDUCATION: GAIL DURBRIDGE

"The Graduate Certificate in MR-PET was borne out of industry need for technologists to have specialist knowledge surrounding the blending of two unique modalities.

The curriculum draws from both magnetic resonance and molecular imaging curriculum with the creation of two new courses. We are excited to be offering a one-week on-campus attendance in Brisbane. Students will cover common clinical MR protocols and experience hands on practical scanning, operating MRI systems and scanning human volunteers."



WHY STUDY MR AND PET AT CAI?

The blend of high-resolution Magnetic Resonance Imaging (MRI) and the physiological data of Positron Emission Tomography (PET) is making an impression in medical diagnosis. The operation of this new hybrid system requires an understanding of both the MRI and PET standalone technologies.

With the rapid development of medical imaging, hybrid medical imaging systems are becoming more commonplace with practitioners needing to upskill in this emerging specialisation. The Centre for Advanced Imaging has answered this gap in industry with the Graduate Certificate in Magnetic Resonance and Positron Emission Tomography (MR-PET).

The four core courses of the Graduate Certificate equip the graduates with specialist knowledge surrounding MR-PET. Classes are taught by lecturers from multidisciplinary backgrounds including MR radiography, nuclear medicine, physics, and engineering.

WHO IS THE PROGRAM DESIGNED FOR?

The Graduate Certificate in MR-PET is designed for professionals such as nuclear medicine technologists and diagnostic radiographers who require a more in-depth knowledge of the theoretical fundamentals and operational considerations of a hybrid MRI scanner and PET scanner.

The program includes an on-campus workshop, giving students the opportunity for hands on practical component to operate MRI scanners and practice scanning on human volunteers.

PROGRAM OFFERED

Graduate Certificate in MR-PET

Program code 5654, CRICOS code 092060D

8 units (half-year full-time or part-time equivalent)

PROGRAM OF STUDY

MRES7100 Magnetic Resonance Imaging: Fundamentals

Explore the principles and methods that underpin Magnetic Resonance Imaging. Topics covered include physical principles of nuclear magnetic resonance, underlying mechanisms of relaxation in MR and descriptions of the way in which pulse sequences are able to exploit relaxation to produce contrast.

MOLI7107 MR-PET Hardware and Software Integration

This course will cover MR-PET instruments used for clinical applications. Consideration will be given to the physical structure of magnet, gradients and RF coils, as well as PET ring construction and integration into a combined MR-PET system. Calibration and general workflow considerations will be introduced to enable simultaneous acquisition of MRI and PET images.

MOLI7108 Clinical Magnetic Resonance Imaging

This course will cover patient screening, preparation and common clinical MRI protocols used when imaging various parts of the human body. This course will include a compulsory one week on-campus component in Brisbane.

MRES7003 MR Safety and Monitoring

Principal hazards of MRI environment and its effects on the human body and equipment. Physiological monitoring strategies examined from the origin of signals to integration with the imaging system.

APPLY FOR CREDIT

Graduates of the Master of Molecular Imaging and Magnetic Resonance Technology programs may be eligible for up to 4 units of credit towards the Graduate Certificate in MR-PET. Contact cai@enquire.uq.edu.au for more information.

