



H309 Bachelor of Medical Imaging Inherent Requirements

Diagnostic Medical Imaging is a fundamental clinical health care discipline that provides a broad spectrum of diagnostic and clinical techniques and essential information for the management of patients. The government and wider community provides the majority of the funds for the training of medical imaging professionals with the reasonable expectation that this investment results in appropriately trained professionals who are capable of delivering high quality care in accord with the Code of Conduct of the Medical Radiation Practice Board of Australia (MRPBA). It is also the case that Deakin aspires to graduate students who are competent and have the ability to lead in their chosen profession.

Medical Imaging education is a continuum of professional development beginning with entry into a medical imaging training program leading to formal completion of training, state registration to practise and then continuing professional education to maintain currency as a lifelong progression.

During the academic and clinical components of the medical imaging course students are required to attend seminars, classes, laboratory practicals, simulation sessions and clinical placements with periods of clinical training taking place in a variety of private and public health service sites (e.g. private medical imaging practices, public health medical imaging services and hospitals). Attendance is required, and in some cases is compulsory, for most of these teaching and learning activities. During clinical placements, a significant component of the curriculum is delivered on line. Students must pass written and clinical examinations in key clinical skills areas before they are allowed to transfer their learning to clinical practice in a clinical placement setting. They are then assessed and required to demonstrate competency in all major areas of clinical practice across a wide range of x-ray examinations and advanced imaging modality experiences before they are eligible to apply for registration as a medical radiographer (NB. pending accreditation of the course by the Australian Health Practitioner Regulation Agency through the Medical Radiation Practice Board of Australia). The combined academic and clinical learning model prepares students for these examinations that assess scientific and clinical knowledge, clinical and communication skills, and professional attitudes and behavior.

Deakin University operates an admission policy that selects applicants who are deemed capable of completing the Medical Imaging course, obtaining registration, maintaining continuing professional development and able to deliver high quality medical radiation practitioner care after graduation.

There are a number of capabilities considered essential to complete the course and register for practice as a registered medical imaging practitioner. Students and potential students should also be aware of the Mandatory Notification requirement placed upon educational providers by Section



143 of the Australian Health Practitioner Regulation National Law. This requirement mandates that the School of Medicine report any students to the National Agency (AHPRA) if they feel they have an impairment that in the course of clinical training may place the public at substantial risk of harm.

1. Motor and Sensory Function

Students must possess adequate motor, tactile and visual functions to operate a range of computer applications, participate in practical classes and be physically robust to perform the full range of prescribed x-ray examinations and specialized procedures across a range of complex diagnostic imaging equipment.

Students need to possess good visual acuity in order to describe and detect a range of subtle technical and clinical appearances by observation. They must be able to use a variety of modality imaging systems and manipulate digital image data bases with a high degree of accuracy and technical care. They must be able to analyze and interpret various modes of information revealed through the use of these instruments and techniques. In the event that students are unable to meet any of these requirements, they must be able to demonstrate reasonable and adequate strategies that would enable them to overcome motor and sensory deficits such that they could independently practise diagnostic imaging in a safe fashion. Further information is available from Medical Imaging staff in the School of Medicine.

2. Mental Health

Students must be sure any consequences of a mental health problem, or therapy associated with a mental health problem, are well controlled, such that they are able to deal with the rigors of a demanding and, at times, inflexible, course curriculum. Students must recognize that participation in, and travel to and from, clinical placements is a requirement of the course, and that professional interactions with both patients and colleagues is expected and required at all times. During the early part of the course these clinical placements are within the locality of Deakin University and Geelong and other specified centres of clinical placement. In the latter part of the course, and particularly in the fourth year, students may be required to spend an extended period of time in residence anywhere in Victoria.

3. Communication Skills

Medical Imaging practice requires advanced oral and written communication skills. Practitioners need to communicate effectively and sensitively with patients, relatives and care givers from all walks of life, irrespective of ethnicity, culture, sexual orientation, socio-economic status, religious beliefs or physical or psychological disability. An ability to gather, synthesize and evaluate information by verbal, written, pictorial and non-verbal means of communication is essential. Medical radiation practitioners must also be capable of delivering concise, comprehensible visually focused, written and verbal advice to patients, relatives, caregivers and professional colleagues.



Key learning formats or clinical skills employed in the course require that students have the ability to: participate in problem-based learning and clinical tutorials; answer written or oral examination questions; take and record a full radiological record of technical and associated examination criteria; deliver an oral summary of a patient's involvement in an imaging examination or procedure; complete the required record cards or documentation; interact with digital recording and image data bases; and access on-line clinical information in clinical settings.

4. Social Skills and Behavioural Attributes

The Deakin Medical Imaging program has a strong emphasis on professional behavior. Progression through the course and graduation is contingent on demonstrating professional attitudes and behavior throughout the course, and certain assessments are linked to this expectation, as these are essential for medical imaging practice.

Medical Imaging students and qualified medical radiation practitioners must be willing to complete a full range of prescribed diagnostic imaging examinations of both male and female patients. They must be able to maintain professional relationships with all patients and colleagues and to complete demanding workloads under stressful conditions. They should also be able to recognize situations where their emotional or physical state precludes delivery of effective care. In all aspects of their professional life, medical radiation practitioners must refrain from displaying any discriminatory behavior.

Students must be able to work collaboratively at all stages of the Medical Imaging course. Applicants must be compassionate and emotionally robust. They must be prepared to put patient care above their own interests, and to maintain confidentiality and high ethical standards.

5. Intellectual or Learning Ability

The Medical Imaging course is demanding and requires high-level intellectual and cognitive skills. Capacity to solve complex problems is required during problem-based learning seminars and team-based learning and in clinical environments. Good medical imaging practice requires the ability to synthesize and respond to complex oral, written and pictorial information. Practitioners are required to accumulate considerable amounts of knowledge and to perform mathematical calculations for diagnosis and therapy. Ability to understand three-dimensional relationships is essential for anatomy, imaging and clinical examination and procedures.



6. Infectious Diseases

Students and medical radiation practitioners are a potential source of infection for patients and colleagues, particularly for immune-compromised patients. Deakin University School of Medicine has developed an Infectious Diseases Policy to reduce this risk. All students are required to sign a statement that they will adhere to this policy as a condition of entry into the Medical Imaging course. The main features of the policy are:

- adherence to infection control procedures, including hand-washing, aseptic technique, disposal of sharps and clinical waste, use of single-use only equipment, sterilisation and disinfection of re-usable equipment, use of personal protective equipment and managing patients in various forms of isolation.
- compliance with an immunisation program against diphtheria, tetanus, polio, pertussis, measles, mumps, rubella (German measles), varicella (chicken pox), hepatitis A, hepatitis B and influenza.
- testing for hepatitis B, hepatitis C and Human Immunodeficiency Virus (HIV).
- for students who are infected with a blood-borne virus, mandatory consultation with a specialist medical practitioner to assess their medical condition and determine which clinical activities they can perform within accepted professional standards. Confidential advice may be sought from the Medical Radiation Practice Board of Australia, which may impose restrictions on course-related activities and medical imaging practice.
- adherence to University and health service protocols following exposure to blood or other body fluids.

The Infectious Diseases Policy is available from the School of Medicine.

7. Medical Radiation Practice Board of Australia Registration Declarations

On completion of the course, students wishing to register to practise as a medical radiation practitioner will have to sign a declaration pertaining to their character and capacity to practise in a safe manner. Failure to be able to sign this declaration, or the making of a false declaration, may result in the individual being unable to register and practise. Students should therefore ensure that they are able to sign and comply with all aspects of the declaration that can be found at the website of the Medical Radiation Practice Board of Australia

www.medicalradiationpracticeboard.gov.au/

When applying for registration, the MRPBA requires students to address the following key areas, as well as academic requirements and other areas on the declaration form.



Criminal history

MRPBA requires students to declare **any** criminal history and provide details about this requirement when they submit their paperwork.

Criminal history includes:

- every conviction of a person for an offence
- every plea of guilty or finding of guilt by a court of the person for an offence, whether or not a conviction is recorded for the offence , and
- every charge made against the person for an offence.

Examples of offences that require disclosure are provided by the MRPBA in its documents 'Criminal history registration standard' and 'Graduate Registration: what you need to know'. Further confidential advice may be obtained by contacting the Medical Radiation Practice Board of Australia at www.medicalradiationpracticeboard.gov.au/

English Language requirement

All graduates must meet the English language standard prior to general or provisional registration and supervised practice. Details are set out in the MRPBA's 'English Language Skills Registration Standard' at www.medicalradiationpracticeboard.gov.au/

When completing the registration application form students are asked:

Did you undertake and complete your secondary education, in English, in one of the countries listed (ie. New Zealand, Canada, Ireland, UK, USA & South Africa)?

Answering 'YES' to this question and signing the application is a legal declaration that students have undertaken and completed their secondary education in English. The Board has the power to take immediate action where registration has been obtained based on false or misleading information.

If their secondary education was not completed in English students may be required to undertake an IELTS or other test.