

BACHELOR OF SCIENCE (MEDICAL RADIATION SCIENCE)

Introduction

The Medical Radiation Science course at Curtin University is professionally accredited and graduating students will need to meet the requirements of the professional body to register to work in this profession. Students should be familiar with the requirements set out by the following accrediting bodies and Standards which may impact their progression throughout their studies and in entering the profession:

1. [Australian Health Practitioner Regulation Agency - Student Registration \(ahpra.gov.au\)](http://ahpra.gov.au)
2. [Medical Radiation Practice Board of Australia](http://www.mrbpa.com.au)

How to read the inherent requirement statements

A series of inherent requirement statements have been developed which are specific to this course. To be successful in your studies all course requirements need to be met which includes the academic/theoretical content and practical application (industry placement). The requirements ensure students understand what is expected to complete their studies and therefore make an informed decision about their chosen course of study.

Each inherent requirement is made up of the following sections:

1. Introduction to the inherent requirement
2. Justification for inherent requirement
3. Examples you must be able to demonstrate to meet the inherent requirement

Curtin will endeavour to meet all students needs to ensure success with studies. Students with a disability or health conditions may be able to have reasonable adjustments made to enable them to meet these requirements. For further support please contact [Curtin's AccessAbility Services](#)

INHERENT REQUIREMENT STATEMENTS

LEGAL COMPLIANCE

1. Medical radiation science practice is mandated by legislation and regulatory requirements to enable the safe and effective delivery of care, and ensure students are both responsible and accountable for their practice.
2. Knowledge, understanding and compliance with legislative and regulatory requirements are necessary pre-requisites to clinical placements to reduce the risk of harm to self and others.
3. Examples:
 - Meet the requirements for [Australian Health Practitioner Regulation Agency - Student Registration \(ahpra.gov.au\)](http://ahpra.gov.au)
 - Comply with relevant legislation including child protection and safety, work health and safety, and anti-discrimination legislation.
 - Practise within contemporary federal and state radiation safety/environmental protection laws and regulations.
 - Adhere to immunisation and health screening requirements for the course.
 - Comply with relevant Workplace Health and Safety policies.

ETHICAL BEHAVIOUR

1. Medical radiation science is a profession governed by codes, guidelines and policies where practitioners are both accountable and responsible for ensuring professional behaviour in all contexts.
2. Compliance with the codes, policies and guidelines facilitate safe, competent interactions and relationships for students and/or the people they engage with. This ensures the physical, psychological, emotional, and spiritual wellbeing of the individual is not placed at risk.
3. Examples:
 - Comply with academic and non-academic codes of conduct and professional standards, including those relating to informed consent, privacy and behaviour that respects personal and professional boundaries and acceptable medical radiation science service quality and competency standards.
 - Work with others effectively, co-operatively, and in a professional manner in diverse and changing academic and practical experience settings (classrooms, laboratories, clinical workplace settings).
 - Practise within the [Medical Radiation Practice Board of Australia](#) Professional Capabilities for Medical Radiation Practice.

BEHAVIOURAL STABILITY

1. Behavioural stability is required to function and adapt effectively and sensitively in a demanding role.
2. Medical radiation science students will be exposed to emergency situations and human suffering and will be required to have behavioural stability to manage these events objectively and professionally.
3. Examples:
 - Tolerate the physical, emotional, and mental demands of university study and clinical placements, and function effectively under stress. (i.e. manage own physical and mental health effectively).
 - Develop mature, sensitive, and effective relationships with patients and healthcare colleagues.
 - Adapt to changing environments, display flexibility and work effectively when faced with the uncertainties inherent in the clinical workplace.
 - Display personal qualities of compassion, integrity, concern for others, interest and motivation.
 - Respect personal and professional boundaries.

COMMUNICATION

This course requires effective verbal, non-verbal and written communication skills.

VERBAL COMMUNICATION

1. Effective verbal English communication with patients, peers and university and clinical staff is required for effective learning and safe and effective practice.
2. Communication is critical to developing respect, empathy, and trust. Some interactions may be limited to verbal communication because of physical limitations of the individual (e.g. injury, disease or congenital conditions). Demonstration of timely, accurate and effective delivery of instructions critical to individual safety, treatment, and management.
3. Examples:
 - Verbal English must allow for fluid, precise and comprehensible two-way discussions, at conversational speed, audible speaking volume, and appropriate tone of voice.
 - Build conversational rapport with patients to encourage their trust and cooperation in the medical radiation science procedure.
 - Effectively communicate and confirm instructions in noisy environments.
 - Question directions and decisions that are unclear
 - Provide timely and audible responses to classes and groups in classroom, laboratory, and clinical workplace settings
 - Present information to an audience of health professionals
 - Communicate in English accurately and efficiently, with patients, carers, and members of health care teams.
 - Communicate effectively and sensitively with others irrespective of their sex, age, culture, lifestyle, sexual orientation, spiritual beliefs, or disabilities, including patients, families and any member of the health care team and display respect, empathy, and compassion.

NON-VERBAL COMMUNICATION

1. An ability to recognise, interpret and respond appropriately to non-verbal cues is essential for effective communication as a developing health professional.
2. The ability to observe, understand and respond appropriately to non-verbal cues assists with building rapport and gaining trust and respect in academic and professional relationships whilst being sensitive to individual and/or cultural differences demonstrates respect and empathy and helps develop trusting relationships.
3. Examples:
 - The ability to observe and understand non-verbal cues assists with building a rapport with people and gaining their trust and respect in academic and professional relationships
 - Displaying consistent and appropriate facial expressions, eye contact, being mindful of space, time boundaries and body movements and gestures promotes trust in academic and professional relationships.
 - Being sensitive to individual and/or cultural differences displays respect and empathy to others and develops trusting relationships.
 - Communicate effectively with people in distress.
 - Communicate respectfully with people of different gender, sexuality, and age, and from diverse cultural, religious, and socio-economic backgrounds.
 - Use appropriate eye contact, gestures, facial expression, and an open body language to build rapport and demonstrate understanding and empathy.

WRITTEN COMMUNICATION

1. Effective communication using written English is required to produce a cohesive academic argument and demonstrate academic writing conventions, including paraphrasing.
2. Written communication must be at an appropriate level for the audience. Competence in reading and comprehension in English is required for safe and effective development.
3. Examples:
 - Accurate written communication, including record keeping and patient notes, is vital to provide consistent and safe patient care.
 - Communicate in English accurately and efficiently in writing and using electronic devices, with patients and members of health care teams.
 - Provide clinical documentation in an accurate, concise, and timely fashion that meets professional standards.
 - Summarise and appropriately reference a range of literature in written assignments.
 - Construct written arguments using grammatically correct and meaningful sentences.
 - Produce accurate, concise, and clear reports from laboratory and practical work.

COGNITION

KNOWLEDGE AND COGNITIVE SKILLS

1. Consistent and effective knowledge and cognitive skills must be demonstrated to provide safe and competent medical radiation science care.
2. The acquisition, recall and application of knowledge, consistent and effective processing of information, attention to detail, theoretical deliberation (problem solving, critical evaluation and professional decision making) and life-long learning behaviours are required for safe and effective practice in medical radiation science.
3. Examples:
 - Gather, comprehend, integrate and organise patient histories and medical radiation science documents and products, including medical images.
 - Make safe and appropriate patient-care decisions from retained knowledge and sourced credible evidence.
 - Notice and respond effectively to small but critical changes in instructions, measurements or reported symptoms.
 - Engage in scientific, clinical and ethical reasoning.
 - Complete professional practice tasks in a safe and reasonable time frame.
 - Competently use information and communication technology, including search engines, common software and online forms, and professional practice systems.
 - Process, recall and apply appropriate and relevant information in a timely manner.
 - Comprehend three-dimensional relationships and understand the spatial relationships of structures.
 - Capacity to locate appropriate and relevant information
 - Ability to process information relevant to practice
 - Ability to integrate and implement knowledge in practice

LITERACY

1. Competence in reading, comprehension, and attention to detail in English is required for safe and effective development as a student medical radiation science practitioner in Australia.
2. The ability to acquire information and to accurately convey messages is fundamental to ensure safe and effective assessment, diagnosis, treatment, and delivery of medical radiation science care. The ability to read, decode, interpret, and comprehend multiple sources of information is fundamental for safe and effective delivery of medical radiation science care.
3. Examples:
 - Read and comprehend handwriting, online and printed materials.
 - Read and interpret charts, spreadsheets, and graphs.
 - Understand hazard signs and warnings.
 - Comprehend technical documents including risk assessments, standard operating procedures, and material safety data sheets.
 - Integrate and summarise information accurately in a meaningful manner.

REFLECTIVE SKILLS

1. Medical radiation science practice requires self-awareness and a capacity for reflection and reflexivity to consider the effect of one's own issues, actions, values, and behaviours.
2. Understanding, and ongoing learning about oneself is required for safe and effective development as a student medical radiation science practitioner. This includes awareness of own thinking, and the ability to evaluate and adapt to challenges in learning and clinical practice environments, and accurately reflect on their professional performance.
3. Examples:
 - Manage uncertainties in scientific and professional decision making.
 - Be aware of and take responsibility for own personal role in inter-personal and team interactions.
 - Recognise when one's own thinking differs from another person's perspective and respond respectfully.
 - Receive and respond appropriately to constructive feedback, including learning from academic and professional practice setbacks.

SENSORY ABILITY

This course requires adequate visual, auditory, and tactile abilities.

VISUAL

1. Adequate visual acuity is required to manage in the University and workplace learning environments to provide safe and effective medical radiation science care.
2. Sufficient visual acuity is necessary to demonstrate the required range of skills, tasks, and assessments to maintain consistent, accurate and safe care of self and to others. Visual

observations, examination and assessment are fundamental to safe and effective medical practice.

3. Examples:
 - Observing and detecting subtle changes in patient's physical signs and response to medical radiation science procedures
 - Independently set up and use medical radiation science equipment that requires safe operation
 - Process visual information from referrals/requests, medical images, electronic displays, analogue displays/indicators, medication labels and packaging, typed and handwritten documents, and posters
 - Distinguish between colours in medical images and electronic displays, including grey-scale gradients
 - Create and interpret textual documents and records using physical and electronic media
 - Observe visual alarms, warnings and directions in university and workplace environments

AUDITORY

1. Adequate auditory ability is required to provide effective and safe medical radiation science care.
2. Sufficient auditory function is required in the university and clinical learning environments to monitor, assess, and manage an individual's needs consistently and accurately.
3. Examples:
 - Listen to nuances in patients' bodily sounds (e.g. changes in breathing, wheezing)
 - Respond to auditory alarms, warnings and directions in university and workplace environments
 - Accurately record and interact with spoken instructions and information.
 - Follow developing discussions with healthcare colleagues regarding patients.

TACTILE

1. Sufficient tactile ability is required to perform competent and safe medical radiation science care.
2. Functional touch sensation, ability to apply appropriate pressure, and appropriate use of touch are required to manage in the university and clinical learning environments, and for safe and effective practice, and are fundamental to safe and effective medical radiation science practice.
3. Examples:
 - Apply appropriate pressure when manipulating equipment and positioning patients for medical radiation science procedures
 - Palpate surface anatomy with appropriate pressure
 - Be comfortable touching people of any age or gender, and regardless of their sexual, cultural, religious or socio-economic background, in a professionally-appropriate manner, to observe signs and symptoms, identify surface anatomy, position and

immobilise patients, position equipment, take body measurements, and provide first aid.

STRENGTH AND MOBILITY

GROSS MOTOR SKILLS

1. Medical radiation science practice involves physical demands and requires gross motor function.
2. Functional movement is required to manage in the university and workplace learning environments, and for safe and effective practice. This includes sufficient strength, range of motion, coordination, and independent mobility (using mobility aids if necessary) to meet practice needs in a time-constrained environment. Tasks that involve gross motor skills include lifting, carrying, pushing, pulling, standing, twisting, and bending. Students must be able to demonstrate and perform these tasks consistently and safely to reduce the risk of harm to self and others.
3. Examples:
 - Maintain an upright position while using both upper limbs to perform a task.
 - Manoeuvre around equipment and in confined spaces (e.g. workstations, laboratory benches, clinical areas, and store rooms).
 - Independently carry and manipulate equipment and materials on varying surfaces and levels (including above head-height and floor-level), to complete tasks within constrained timeframes.
 - Have the physical capability to provide emergency life support.
 - Travel to, and participate in, medical radiation science placements and other fieldwork, and meet the physical demands of those sites.
 - Practise safe handling techniques when handling medical radiation science equipment and patients.
 - Perform actions that require coordination of both gross and fine motor muscular movements, equilibrium, and functional use of the senses of touch and vision.

FINE MOTOR SKILLS

1. Medical radiation science is a profession that requires manual dexterity and fine motor skills to perform medical radiation science procedures and deliver safe and effective care.
2. Fine-motor manual skills and dexterity are required to perform dental procedures and deliver safe and effective care.
3. Examples:
 - Adjust levers, knobs and dials.
 - Perform actions that require coordination of both gross and fine motor muscular movements, equilibrium and functional use of the senses of touch and vision.

SUSTAINABLE PERFORMANCE

1. Medical radiation science practice requires functional and sustainable physical, cognitive, and psychosocial performance to complete complex and extended practice tasks safely and effectively in time-constrained environments.
2. Sufficient physical and mental endurance is an essential requirement needed to perform multiple tasks in an assigned period to provide safe and effective care.
3. Examples:
 - Ability to perform repetitive activities with a level of concentration that ensures a capacity to focus on the activity until it is completed appropriately.
 - » Sufficient physical and mental endurance required to perform multiple tasks in an assigned period to provide safe and effective care.
 - Maintain a level of concentration to focus on an activity to completion.
 - Perform repetitive tasks (e.g. typing, walking) for extended periods, with appropriate breaks.
 - Sustain study practices and workplace performance to ensure effective learning and application of that learning.
 - Work within own limits of personal and professional competence.

Attribution



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