

MRSC4160: Medical Radiation Science Professional Practice 4B

Callaghan

Semester 2 - 2023



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description

By attending a professional placement at an accredited clinical centre in a variety of service settings, this course allows students to broaden their professional practice experience, consolidate academic knowledge and refine professional skills towards competent practitioner level.

Review of Progress Requirements

This course is a compulsory program requirement for students in the following program(s):

- Bachelor of Medical Radiation Science (Honours) (Diagnostic Radiography)
- Bachelor of Medical Radiation Science (Honours) (Radiation Therapy)
- Bachelor of Medical Radiation Science (Honours) (Nuclear Medicine)

In addition to meeting the University's overall requirements for academic progression, students enrolled in these program(s) must satisfactorily complete this course in order to progress in their program.

Requisites

Students must be active in one of the B Medical Radiation Science (Honours) (Diagnostic Radiography) [40002], Bachelor of Medical Radiation Science (Honours) (Radiation Therapy) [40010] or Bachelor of Medical Radiation Science (Honours) (Nuclear Medicine) [40011] programs to enrol in this course.

Assumed Knowledge Contact Hours

MRSC4110, MRSC4220 or MRSC4330

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Clinical ***

Face to Face Off Campus
5 day(s) per Week for 11 Weeks

Workshop *

Online via zoom
3 hour(s) per Week for 3 Weeks

* This contact type has a compulsory requirement.

Unit Weighting

10

Workload

Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

COURSE OUTLINE

CONTACTS

Course Coordinator

DR Lead

Natalie Reynolds
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Consultation: By appointment

NM Lead

Melissa Shields
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Consultation: By appointment

RT Lead

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Teaching Staff

Other teaching staff will be advised on the course Canvas site.

School Office

School of Health Sciences

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SYLLABUS

Course Content

Professional Practice involving the application of:

1. Aspects of Ethical and Professional practice including legal responsibilities, mandatory and voluntary reporting, MRPB Code of Practice, informed consent, fitness to practice, bioethics
2. Components and structure of the Australian Health Care System
3. Quality frameworks as relevant to Medical Radiation Science
4. Safe radiation practice principles and procedures in Diagnostic Radiography related areas (not limited to):

- General radiography
- CT
- MRI
- DSA

Including risk management, safe use of equipment and instrumentation, and workplace safety including management of radiation and radioactivity.

5. Safe radiation practice principles and procedures in Nuclear Medicine related areas (not limited to):

- Radionuclide Therapy
- MRI
- Paediatric

6. Safe radiation practice principles and procedures in Radiation Therapy related areas (not limited to):

- Proton Therapy
- MR Linac
- Brachytherapy

- Radiation Therapy Planning Software and Workflow

Course Learning Outcomes

On successful completion of this course, students will be able to:

1. Observe and identify the role and function of medical radiation practitioners and healthcare team members in the delivery of healthcare.
2. Apply and participate in MRS procedures at a level suitable to their current clinical experience
3. Develop and demonstrate a professional attitude towards members of the public and other healthcare workers.
4. Further develop clinical reasoning skills.
5. Further develop and apply communication skills with members of the public and other healthcare workers.

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Contact Hour Requirements:

- Clinical: There is a compulsory attendance requirement in this course.
- Workshop: There is a compulsory attendance requirement in this course. Students must attend the workshops and engage with the learning activities and assessment.

Course Assessment Requirements:

- Assessment 1 - Log / Workbook: Attempt / Submission Requirement - Students must attempt/submit this assessment item to pass the course. Students must complete and submit all parts of the clinical workbook and complete the required clinical contact hours to pass this course.
- Assessment 2 - Portfolio: Attempt / Submission Requirement - Students must attempt/submit this assessment item to pass the course.

Pre-Placement Requirements:

- First Aid Certificate - students must complete a First Aid Certificate issued by an approved provider.
- NSW Health Verification Requirements - Mandatory NSW Health Verification Requirements must be met.

DIAGNOSTIC RADIOGRAPHY

This course has 2 assessments. Each assessment is described in more detail in the sections below and is specific to each course.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	a) Placement Supervisor Report Block 7 *	BLOCK 7: Mid-placement Report – 15% Final placement Report – 20%	Individual	35%	1,2,3,4,5
	b) Placement Supervisor Report Block 8 *	BLOCK 8: Final Placement Report	Individual	20%	1,2,3,4,5

2	Clinical Portfolio *	UoN Week 3 – Wednesday 2 August 2023, Online Quiz	Individual	15%	1,2,4
		UoN Week 6 – Wednesday 23 August 2023, Online Quiz	Individual	15%	1,2,4
		UoN Week 11 – Wednesday 11 October 2023, Online Quiz	Individual	15%	1,2,4

* This assessment has a compulsory requirement.

Assessment 1 – Placement Supervisor Report DIAGNOSTIC RADIOGRAPHY

Professional Skills/Clinical Competence Supervisor Report Block 7

Assessment Type: Supervisor Report

Description: Completion of all sections of the Clinical Supervisor's Mid and End Placement Report meets course objectives 1-5.

Clinical Supervisor Report: These reports assess the student against a series of skill-based and attitudinal indicators. The assessment report contains both formative and summative feedback for the student.

Weighting: Mid-Placement Report: 15%

End of Placement Report: 20%

Compulsory Requirements

Attempt / Submission Requirement - Students must obtain satisfactory grades in the mandatory assessment items on the clinical supervisor's assessment to pass the course. Students are not required to submit this themselves.

Due Date: Week 2, Semester 2

Submission Method: Reports will be submitted electronically by the Supervisors.

Feedback Provided: Yes

Opportunity to Reattempt: Students WILL NOT be given the opportunity to reattempt this assessment.

Reattempt only available if appropriate Adverse Circumstance application submitted.

Professional Skills/Clinical Competence Supervisor Report Block 8

Assessment Type: Supervisor Report

Description: Completion of all sections of the Clinical Supervisor's End Placement Report meets course objectives 1-5.

Clinical Supervisor Report: These reports assess the student against a series of skill-based and attitudinal indicators. The assessment report contains both formative and summative feedback for the student.

Weighting: End of Placement Report: 20%

Compulsory Requirements: Attempt / Submission Requirement - Students must obtain satisfactory grades in the mandatory assessment items on the clinical supervisor's assessment to pass the course. Students must attempt/submit this assessment item to pass the course.

Due Date: Week 11, Semester 2.

Submission Method: Reports will be submitted electronically by the Supervisors.

Feedback Provided: Yes

Opportunity to Reattempt: Students WILL NOT be given the opportunity to reattempt this assessment.

Reattempt only available if appropriate Adverse Circumstance application submitted

Assessment 2 - Clinical Portfolio – DIAGNOSTIC RADIOGRAPHY

Assessment Type: Portfolio

Description: Three topics will be covered; MRI, digital subtraction angiography (DSA) and Paediatrics. Quizzes will be undertaken during or post, each workshop.

Weighting: 45%; each topic is worth 15%

Due Date: Due dates will be at each relevant topic workshop.

Return Method: Marks will be posted into Grade Book in Canvas

Feedback Provided: An appointment can be made with the course coordinator to review your examination on an individual basis.

Opportunity to Reattempt: Students WILL be given the opportunity to reattempt this assessment.

Re-attempt only possible with approved adverse circumstances application

NUCLEAR MEDICINE

This course has 2 assessments. Each assessment is described in more detail in the sections below and is specific to each course.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Block 7 , Supervisor's Report *	Due: 4pm 26 th July	Individual	15%	1,2,3,4,5
	Block 8 , Supervisor's Report *	Due: 4pm 4 th October	Individual	10%	1,2,3,4,5
	Case Study*	Due: 4pm 20 th October	Individual	30%	1,4
	Reflective Report*	Due: 4pm 20 th October	Individual	S/NS	1,3,4,5
	PET/CT Competency*	Due: 4pm 20 th October	Individual	S/NS	2,4
	CT Logbook*	Due: 4pm 20 th October	Individual	S/NS	1,2,4
2	Clinical Portfolio *	Week 3 – Wednesday 2 nd August, Online Quiz	Individual	15%	1,2,4
		Week 6 – Wednesday 23 rd August, Online Quiz	Individual	15%	1,2,4
		Week 11 – Wednesday 11 th October, Online Quiz	Individual	15%	1,2,4

* This assessment has a compulsory requirement

Assessment 1 – Nuclear Medicine

Placement Workbook

Assessment Type: Reports

Description & Weighting:

- Progress report from Block 7 – S/NS
- Final report from Block 7 – 15%
- Progress report from Block 8 – S/NS
- Final report from Block 8 – 10%
- Case Report – 30%
- Reflective report – S/NS
- PET/CT competency – S/NS
- CT logbook – S/NS

Compulsory Requirements

Minimum Grade/Mark Requirement - Students must obtain a specified minimum grade/mark in this assessment item to pass the course.

Attempt / Submission Requirement - Students must attempt/submit this assessment to pass the course.

Due Date: Various dates, see Canvas for dates.

Submission Method: Online via canvas.

Feedback Provided: Online via Canvas. An appointment can be made with the NM lead to review your assessment on an individual basis.

Opportunity to Reattempt: Students WILL be given the opportunity to reattempt this assessment. Reattempt only available if an appropriate Adverse Circumstance application submitted.

Assessment 2 - Clinical Portfolio – NUCLEAR MEDICINE

Assessment Type: Portfolio

Description: The portfolio consists of the online modules and workshop activities. In MRSC4160, students complete three modules - MRI, Paediatrics and Radionuclide Therapy. Quizzes will be undertaken during or post, each workshop.

Weighting: Each module is worth 15% (Total 45%).

Compulsory Requirements: Students must attempt/submit this assessment item to pass the course.

Due Date: All modules and workshop activities must be completed as per the table above.

Return Method: Online via Canvas.

Feedback Provided: Online via Canvas. An appointment can be made with the NM lead to review your assessment on an individual basis.

Opportunity to Reattempt: Students WILL be given the opportunity to reattempt this assessment.

Re-attempt is only possible with approved adverse circumstances application

RADIATION THERAPY

This course has 2 assessments. Each assessment is described in more detail in the sections below and is specific to each course.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1a	Professional Skills/Clinical Competence Workbook *	Y4B7: June/July Placement Due: Friday 4 th August 2023, 5pm Y4B8: Sept/Oct Placement Due: Monday 9 th October 2023, 5pm	Individual Individual	30% (supervisors report BLOCK 7) + 20% (reflective report) 20% (supervisors report BLOCK 8)	1,2,3,4,5, 6, 7, 8, 9
1b	Student Capability Record (SCR)*	Y4B7: June/July Placement Due: Friday 4 th August 2023, 5pm Y4B8: Sept/Oct Placement Due: Monday 9 th October 2023, 5pm	Individual Individual	Formative Formative	3,9 3, 9
2	Clinical Portfolio *	Due: Friday 3 rd November 2023, 5pm	Individual	30%	1, 2, 7, 8, 9

* This assessment has a compulsory requirement

Students are expected to attend three (3) workshops as described on Canvas.

Assessment 1 – Professional Skills/Clinical Competence Workbook and Reports – RADIATION THERAPY

Clinical Supervisors Report

The Clinical Supervisors Report is to be completed by RT Educators, Supervisors or Mentors. It provides evidence for the overall evaluation of a students clinical knowledge and skills over an extended period of time in professional practice, as described by the AHPRA Medical Radiation Practice Accreditation Committee, Accreditation Standards (for Radiation

Therapists). In order to pass this course, a student must obtain the following grades in the Final Summative Assessment:

- A minimum 'Meets Expectations' (Meeting expectations in most elements of the domain) in each item listed in the General Domains for Assessment
- A minimum 'Meets Expectations' (Meeting expectations in most elements of the domain) in each item listed in the Specific Domains for Assessment (Radiation Therapy)

Assessment Type: Clinical Workbook and Reflective Report

Description: Knowledge, skills and professional attributes assessment based on Professional Capabilities for AHPRA Medical Radiation Practice Accreditation Committee, Accreditation Standards. The summative assessment reflects the student's abilities. The Supervisors Summative report is 50% of the Course mark. Reflective Report is 20% of the course mark. The report provides an additional evaluation of clinical knowledge and skills as described in the AHPRA Medical Radiation Practice Accreditation Committee, Accreditation Standards.

Weighting: 50% Supervisor Report (Y4B7 30% and Y4B8 20%); 20% Reflection Report (Total 70%)

Compulsory Requirements: Minimum Grade/Mark requirement - Students must obtain a specified minimum grade/mark in this assessment to pass the course.

Due Date: As per the table above.

Submission Method: Online via Canvas.

Assessment Criteria: Per Workbook/assessment PDF

Feedback Provided: Online via Canvas.

Opportunity to Reattempt: Opportunity for remediation may be permitted only if accompanied by the appropriate Adverse Circumstances documentation and if within policy guidelines.

Student Capability Record

Assessment Type: Student Capability Record - SCR

Purpose: Recorded evidence for the evaluation of a student's application of clinical knowledge and skills across a broad range of expected clinical capability domains

Description: The Student Capability Record (SCR), previously referred to as the Competency Assessment record (CAR) provides evidence for the evaluation of a student's application of clinical knowledge and skills across a broad range of expected capability domains. It is a system to allow clinical supervisors the opportunity to verify individual student accomplishment in each area of assessment. This capability record is to be completed by Supervisors/Educators and verified by University Staff.

Weighting: This is a formative assessment and will not contribute to the final grade. However, it is a compulsory requirement to pass the course.

Compulsory Requirements: Minimum Grade/Mark requirement - Students must obtain a specified minimum grade/mark in this assessment to pass the course.

Due Date: As per the table above.

Submission Method: Online via Canvas.

Assessment Criteria: Per Workbook/assessment PDF

Feedback Provided: As required.

Assessment 2 – Portfolio of Learning – RADIATION THERAPY

Assessment Type: Portfolio of Learning

Purpose: To develop evidence-based practice as a foundation of clinical knowledge

Description: The development of work to support advocacy. Students are required to develop a piece of work investigating patient advocacy as directly related to RT.

Weighting: 20% - Advocacy piece; 10% - student written commitment to patient advocacy post-graduation (Total 30%)

Compulsory Requirements: Submission Requirement - Students must submit this assessment item to pass the course.

Due Date: As per the table above.

Submission Method: Online via Canvas.

Assessment Criteria: Per Workbook/assessment PDF

Feedback Provided: Online via Canvas

Opportunity to Reattempt: Opportunity for remediation may be permitted only if accompanied by the appropriate Adverse Circumstances documentation.

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Blackboard course site.
- Email: Students will receive communications via their student email account.
- Face-to-Face: Communication will be provided via face-to-face meetings or supervision.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential

improvement.

Oral Interviews (Vivas)	As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the Oral Examination (viva) Procedure . In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the Student Conduct Rule .
Academic Misconduct	All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to https://policies.newcastle.edu.au/document/view-current.php?id=35 .
Adverse Circumstances	<p>The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:</p> <ol style="list-style-type: none">1. the assessment item is a major assessment item; or2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;3. you are requesting a change of placement; or4. the course has a compulsory attendance requirement. <p>Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at: https://policies.newcastle.edu.au/document/view-current.php?id=236</p>
Important Policy Information	The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures that support a safe and respectful environment at the University.

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

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