

MRSC3305: Nuclear Medicine Methods IIIA

Callaghan

Semester 1 - 2024



OVERVIEW

Course Description	This course further develops & examines complex and key components of Nuclear Medicine science. This course develops the concept of nuclear medicine imaging procedures, in the specific areas of: <ul style="list-style-type: none">- bone mineral densitometry- renal- central nervous system &- inflammation and infection imaging.
Academic Progress Requirements	Nil
Requisites	Students must be concurrently enrolled in MRSC3330, have successfully completed HUBS1401, HUBS2103, MRSC2350 & MRSC2380, and be active in the B MRS (Honours) (Nuclear Medicine) [40011] program to enrol in this course.
Assumed Knowledge	MRSC2350, MRSC2380.
Contact Hours	Callaghan Lecture Face to Face On Campus 2 hour(s) per week(s) for 8 week(s) Tutorial Face to Face On Campus 2 hour(s) per week(s) for 8 week(s)
Unit Weighting Workload	10 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 **Callaghan**
Mr Andrew Lloyd
Andrew.Lloyd@newcastle.edu.au
(02) 4921 7069
Consultation: Tuesday-Thursday by appointment. Please email

Dr Daphne James
Daphne.James@newcastle.edu.au
(02) 49215596

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

1. Further exposure to multi-modality Nuclear Medicine techniques and processes focusing on the Central nervous system, inflammation and infection imaging, genitourinary procedures and BMD.
2. Application of advanced clinical reasoning skills with regard to patient management, patient care, and imaging/treatment evaluation.
3. Radiopharmacy including preparation and administration of radiopharmaceuticals, and the physiological and behavioural effects of radiopharmaceuticals pertinent to the specific topic areas.
4. Group work - preparation of scientific literature

Course Learning Outcomes

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

1. Describe and apply current nuclear medicine practice in the diagnosis and treatment of disease or injury, and appreciate the range of disease processes and injuries which can be diagnosed and treated with nuclear medicine.
2. Further develop clinical reasoning skills with regard to patient management, patient care, and imaging/treatment evaluation.
3. Demonstrate team work skills in the research, collation and presentation of scientific literature.
4. Describe the physiological behaviour and pathways of radiopharmaceuticals.

Course Materials

COMPULSORY REQUIREMENTS

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

Contact Hour Requirements:

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Course Assessment Requirements:

- Assessment 2 – Poster Project: Must complete this assessment to pass the course
- Assessment 3 - Formal Examination: Must complete this assessment to pass the course

Compulsory Placement and WHS Requirements:

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SCHEDULE

Week	Topic/Subject	Activity	Task / Action
1	BMD	Positioning tutorial	Pair Up for Project
2	Renal		BMD Quiz
	Placement	Clinical Placement	Clinical Placement
	Break	Rest & revitalise	None
8	Infection/Inflammation	Renal Processing tutorial	Renal Quiz
9	Infection/Inflammation		Infection Quiz
10	Central Nervous System		
11	Central Nervous System		Written Assignment
12	Central Nervous System		CNS quiz
13	Revise	Present Poster	Project Due
	Exams & Revision	Exams & Revision	Exams & Revision
	Exams & Revision	Exams & Revision	Exams & Revision

ASSESSMENTS

This course has 4 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Essays / Written Assignments	20 th May	Individual	10%	1,2
2	Poster Project *	3 rd June	Group	40%	1, 3,
3	Formal Examination *	Examination Period	Individual	30%	1, 2 & 4
4	Online Quizzes	4 dates through the semester	Individual	20%	1, 2 & 4

* This assessment has a compulsory requirement.

Late Submissions

The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 – Essays / Written Assignments

Assessment Type	Written Assignment
Description	Students will critique a supplied article and discuss its importance to the future practice of Nuclear Medicine
Weighting	10%

Compulsory Requirements	–
Due Date	20 th May
Submission Method	Online - Cadmus
Assessment Criteria	A rubric will be published on the Canvas site through a Cadmus portal.
Return Method	Online
Feedback Provided	Online marking comments
Opportunity to Reattempt	If students fail to complete appropriate submission they will be asked to resubmit

Assessment 2 – Poster Project

Assessment Type	Group Work
Description	Students will complete and present a Poster through group work
Weighting	40%
Compulsory Requirements	Students must submit an attempt for this exam to pass the course
Due Date	3 rd June
Submission Method	Online
Assessment Criteria	Marking rubric will be published online
Return Method	Online
Feedback Provided	Online and by appointment
Opportunity to Reattempt	Students will NOT be given an opportunity to reattempt this assessment

Assessment 3 – Formal Examination

Assessment Type	Formal Examination
Description	This will be a formal, invigilated exam during the formal exam period
Weighting	30%
Compulsory Requirements	Students must submit an attempt for this exam to pass the course
Due Date	A date during the formal exam period, 11-23 rd June, will be provided
Submission Method	Online in an invigilated on-Campus examination room
Assessment Criteria	
Return Method	Marks will not routinely be provided.
Feedback Provided	By Appointment
Opportunity to Reattempt	Students will NOT be given an opportunity to reattempt this assessment

Assessment 4 – Online Quizzes

Assessment Type	Online Quizzes
Description	Four quizzes will be delivered and set throughout the semester
Weighting	20% total: 5% per quiz
Compulsory Requirements	Nil
Due Date	Due dates will be throughout the semester
Submission Method	Online
Assessment Criteria	
Return Method	Online
Feedback Provided	By appointment and online
Opportunity to Reattempt	Students may be provided an opportunity to reattempt in special circumstances

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:

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

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:

1. the assessment item is a major assessment item; or
2. 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;

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3. you are requesting a change of placement; or
 4. the course has a compulsory attendance requirement.

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>

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/respect-at-uni/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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