



## Nuclear Medicine Clinical Practice 4

RADY 4040 Study Period 3 - 2022

Internal - City East Campus

## Introduction

### Welcome

Welcome to the second clinical course of fourth year, Nuclear Medicine Clinical Practice 4. I hope you are enthusiastic and ready to begin your next clinical placement and will continue to impress with the knowledge and skill base you have worked so hard to gain.

This course consists of:

- a compulsory pre-clinical workshop
- six (6) weeks of clinical practice in a nuclear medicine department
- two (2) weeks in a diagnostic CT department

At this stage of your program you should continue to apply the knowledge gained in your university courses along with the experience and skills you have acquired in previous clinical courses. Start thinking about the type of Nuclear Medicine department you would like to work in - the year is going to fly by and you will be applying for jobs in the coming months.

Please read this course outline carefully. It has important information regarding assessments and what is required from you during your time in the clinical environment.

Communication throughout the course: I encourage students to engage regularly via:

- general queries and discussion about clinical experience - [Microsoft Teams 'Nuclear Medicine CP4 2022'](#)
- assessment queries - please post to the Assessment Q&A forum.
- private/personal queries - please send me a message through the private dialogue

I look forward to working with throughout this course and am here to support you along the way!

Cristina Blefari

### Academic Work Definitions

**Internal mode** includes face to face/in person components such as lectures, tutorials, practicals, workshops or seminars that may be offered at a University campus or delivered at another location. Courses delivered in internal mode may also be offered intensively allowing them to be completed in a shorter period of time. There is an expectation that students will be physically present for the delivery of face to face/in person teaching and learning activities.

### Workshop

[Student information](#)

A workshop is a structured activity, delivered either in person or online in a virtual classroom in which the student is required to actively contribute. Your instructor will facilitate guided activities that relate to course content previously covered in a lecture and/or seminar and/or tutorial.

All students are expected to be familiar with relevant lecture seminar and/or tutorial content prior to a workshop in preparation for undertaking the activities in the workshop.

## Online facilitation

### Student information

Online courses generally require students to independently read, view and/or work through all required materials, including pre-recorded presentations that have been produced and provided to facilitate this form of learning.

Independent online learning is supported by Online Facilitators who supplement online teaching resources by facilitating, monitoring and moderating online forums; answering student queries via virtual office hours or help desks, online dialogue and/or phone conversations, providing formative feedback on your work or explaining comments and marking of your prior work.

Students are expected to be familiar with all relevant course content, including materials provided and assessments, and engage appropriately with facilitators within the timeframes provided.

## Course Teaching Staff

Primary Coordinator:	Ms Cristina Blefari
Location:	UniSA Allied Health & Human Performance BJ1-29A
Telephone:	+61 8 8302 2302
Email:	Cristina.Blefari@unisa.edu.au
Staff Home Page:	people.unisa.edu.au/Cristina.Blefari

\* Please refer to your Course homepage for the most up to date list of course teaching staff.

## Contact Details

### UniSA Allied Health & Human Performance

Physical Address:	Level 8, Centenary Building UniSA City East Campus Adelaide 5000
Website:	<a href="https://www.unisa.edu.au/about-unisa/academic-units/allied-health-and-human-performance/">https://www.unisa.edu.au/about-unisa/academic-units/allied-health-and-human-performance/</a>

## Additional Contact Details

### CAMPUS CENTRAL

Email: [campuscentral.cityeast@unisa.edu.au](mailto:campuscentral.cityeast@unisa.edu.au)  
Website: <https://i.unisa.edu.au/Campus-Central/>

### CLINICAL PLACEMENT UNIT

Clinical Placement Unit, Division of Health Sciences, University of South Australia  
GPO Box 2471  
Adelaide South Australia 5001  
Australia  
Email: [CPUOffice@unisa.edu.au](mailto:CPUOffice@unisa.edu.au)

website: <https://study.unisa.edu.au/student-placements-and-internships/nursing-health-medical-sciences/cpu/>

**SAMI (South Australian Medical Imaging) Clinical Placement Coordinator**

Emma Liu

Email: [Emma.Liu@sa.gov.au](mailto:Emma.Liu@sa.gov.au)

Telephone: 08 8222 6894

# Course Overview

## Prerequisite(s)

RADY 4039 Nuclear Medicine Clinical Practice 3

## Corequisite(s)

There are no corequisite courses to be completed in conjunction with this course.

## Course Aim

To enable the student to apply and integrate the knowledge and skills gained in the academic program to the Nuclear Medicine clinical environment at an advanced level.

## Course Objectives

On completion of this course, students should be able to:

CO1. Demonstrate an understanding of the issues pertaining to workplace management including team work, the development of resources, cost efficiency, trends in current practice and the modification of work practices

CO2. Demonstrate a knowledge of quality control principles relating to routine Nuclear Medicine practice

CO3. Demonstrate the use of appropriate patient care including effective and apt communication with the patient, critical evaluation and recognition of appropriate referral of Nuclear Medicine procedures, monitoring of the patient's medical condition and the identification and assessment of the psychological and physical needs of the patient

CO4. Demonstrate and describe the routine techniques (adult and paediatric) used in Nuclear Medicine including the preparation and administration of radiopharmaceuticals and the acquisition, analysis and archiving of data

CO5. Discuss the role of the Nuclear Medicine scientist in providing a safe radiation environment including the adherence to local radiation safety and protection guidelines, the ability to access radiation safety (national and international), and relevant occupational health and workplace safety, legislation and safety in the workplace for staff and patients in areas such as patient transfers and infection control

CO6. Demonstrate the use of appropriate professional behaviour associated with the Nuclear Medicine profession including continuing education and professional development, adherence to a professional code of ethics and non-discriminatory work practices

CO7. Promote the Nuclear Medicine profession to medical and other health professionals, patients, their families and the community

Upon completion of this course, students will have achieved the following combination of Graduate Qualities and Course Objectives:

	Graduate Qualities being assessed through the course						
	GQ1	GQ2	GQ3	GQ4	GQ5	GQ6	GQ7
CO1	•	•	•	•		•	•
CO2	•		•	•	•		
CO3	•		•	•	•	•	
CO4	•		•	•	•		
CO5	•	•	•		•		•
CO6	•	•	•	•	•	•	
CO7	•	•			•	•	•

## Graduate Qualities

A graduate of UniSA:

GQ1. operates effectively with and upon a body of knowledge of sufficient depth to begin professional practice

GQ2. is prepared for life-long learning in pursuit of personal development and excellence in professional practice

GQ3. is an effective problem solver, capable of applying logical, critical, and creative thinking to a range of problems

GQ4. can work both autonomously and collaboratively as a professional

GQ5. is committed to ethical action and social responsibility as a professional and citizen

GQ6. communicates effectively in professional practice and as a member of the community

GQ7. demonstrates international perspectives as a professional and as a citizen

## Course Content

Clinical skills development (advanced level) building on technical skills gained in previous clinical courses including patient care and communication, safety, professional behaviour, team working, self motivation, self directed learning and clinical reasoning.

## Teaching and Learning Arrangements

Clinical	300 hours
Workshop	22.5 hours

## Unit Value

9 units

## Use of recorded material

This course will involve the production of audio and/or video recordings of UniSA students. To protect student privacy, you must not at any time disclose, reproduce or publish these recordings, or related material, in the public domain including online, unless the videoed students give consent for reproduction, disclosure or publication. This requirement is consistent with University statutes, by-laws, policies, rules and guidelines which you agreed to abide by when you signed the Student Enrolment Declaration.

## Student recording of learning activities

Students **must** seek permission prior to recording any UniSA learning activity. See [A-56 Policy Student recording of learning activities](#)

Breaches of this Policy contravene the principles of academic integrity, and attract the penalties provided in Section 9 of the [Assessment Policies and Procedures Manual](#).

## Placement Information

### 1. CLINICAL ATTENDANCE

It is a compulsory component of this course that you attend the required number of clinical days as detailed in the assessment criteria according to the Clinical Placement Attendance policy (see further assessment information and for more details). Students are expected to be punctual at all times and are not to leave early unless directed to do so by the Clinical Supervisor (or delegated mentor). Quiet times without patients are an ideal time for students to familiarise themselves with, for example, protocols, equipment and image review as well as restock consumables, attend to scanning rooms, be involved in the disposal of radiation waste, practice image processing, observe image reporting, review journals and perform quality control on equipment. PERSONAL APPOINTMENTS ARE TO BE MADE OUTSIDE OF CLINICAL PLACEMENT HOURS.

### 2. CLINICAL PLACEMENT POLICIES AND PROCEDURES

It is the student's responsibility to be aware of, and adhere to all clinical policies. Refusal to do so may be considered a breach of professional behaviour and, hence, academic misconduct. The link for these policies

can be accessed via: <https://i.unisa.edu.au/students/health/cpu/forms/>

### **3. CONDITIONAL EVIDENCE AND PASSPORT TO PLACEMENT**

Conditional Evidence: All students are to complete the 'Student Checklist - Allied Health and Human Performance' and place original documents in their Passport to Placement (PTP) folder. Conditional evidence documents are required to be presented to venue staff on the first day of orientation and are required to be current for the full duration of clinical placement. Students can view submitted evidence in the my Current Studies/myPlacement section of their student portal.

A copy of the 'Student Checklist - UniSA Allied Health and Human Performance' is available through the Clinical Placement Unit (CPU) website:

[https://study.unisa.edu.au/contentassets/4ef6f879478f44bda979816dc143e401/medical\\_radiation\\_science\\_unisa\\_passporttoplacement\\_checklistv1.pdf](https://study.unisa.edu.au/contentassets/4ef6f879478f44bda979816dc143e401/medical_radiation_science_unisa_passporttoplacement_checklistv1.pdf)

### **4. RURAL/REGIONAL OR INTERSTATE CLINICAL PLACEMENT**

As of 2016, the Australian Health Practitioner Regulation Agency has introduced a registration requirement that all students must complete a rural/regional placement experience at some time during their program. Interstate placement opportunities also exist and at times students will be allocated to an interstate placement site where local allocations are exhausted. \*2022: as COVID restrictions have impacted interstate opportunities for NM placements (including rural/regional). Interstate placements are currently under review.

### **5. VARIATION TO CLINICAL PLACEMENT**

Changes to the clinical roster will only be made for extenuating circumstances. A formal request must be submitted to the UniSA Clinical Placement Unit, prior to the commencement of the Clinical Course for consideration. The request for variation to clinical placement form can be found via: <https://study.unisa.edu.au/student-placements-and-internships/nursing-health-medical-sciences/cpu/#policies-forms>

### **6. PRE-CLINICAL INFORMATION**

All important clinical information will be discussed during the pre-clinical workshop (where attendance and participation is mandatory).

### **7. SAFE PRACTICE AND DUTY OF CARE AND PROFESSIONAL AND ETHICAL CONDUCT**

'Safe Practice and Duty of Care' and 'Professional and Ethical Conduct' are essential components of clinical practice.

A satisfactory grade in both of the Summative components of 'Safe Practice and Duty of Care' and 'Professional and Ethical Conduct' is essential to pass this course.

Safe Practice and Duty of Care:

The student must demonstrate 'Safe Practice and Duty of Care' in the clinical setting.

'Safe Practice and Duty of Care' will be demonstrated by the student who:

- \* demonstrates awareness of manual handling principles in patient and staff safety
- \* demonstrates the safe application of all equipment
- \* is responsible for patient and personal safety
- \* does not put other persons in the workplace at any risk
- \* demonstrates an awareness of infection control practices
- \* demonstrates knowledge of the ALARA principle

Professional and Ethical Conduct:

The student must behave in a 'Professional and Ethical' manner, according to the Medical Radiation Practice Board of Australia (MRPBA) Code of Conduct as well as the University of South Australia Clinical Policies, throughout the clinical placement.

'Professional and Ethical Conduct' is demonstrated by the student who:

- \* clearly wears the student identification badge at all times
- \* wears a current Luxel at all times in accordance with the Bachelor of Medical Radiation Science 'Luxel' policy
- \* is punctual at all times in accordance with the Bachelor of Medical Radiation Science 'Clinical Attendance' policy
- \* maintains confidentiality of staff and patient information at all times
- \* maintains personal hygiene and dress as stated in the Medical Radiation 'Uniform' policy
- \* behaves in a professional manner to colleagues, supervisors, patients and their families at all times

If a student is deemed unsafe or unprofessional at any time during clinical practice, he/she may be removed

from the clinical placement, subject to a review to assess their suitability to participate in the Clinical Practice course as per the 'Assessment Policies and Procedures Manual, 2022 (please refer to Section 4, 'Practice-based learning', found at <https://i.unisa.edu.au/siteassets/policies-and-procedures/docs/manual/2022/appm-2022.pdf?1650587576672>

### **8. CLINICAL CONFIDENTIALITY**

The student must hold in strictest confidence any information gained from any source concerning patients and/or staff members. The student must not identify a patient, peer, clinician/staff member, or clinical site in any way, in any teaching strategy i.e. oral presentation, assignment, case report, clinical record or online discussion. All information taken from the placement must not have patient identification details present. It is unacceptable to cover the patient details with any kind of marker (i.e. tipex, texta, white out). Doctors' reports or request forms must not be reproduced, but in instances where this information is required for an assessment, this information may be summarised. At no time should a student refer to a particular clinical site where case material has been sourced or even the date an examination was performed. Take care when describing clinical protocols used, as even these can be site specific and thus traceable to a clinical placement location.

Instances where clinical confidentiality has not been observed will be penalised with a '0' mark for that assessment and may result in a fail grade for this course. Please refer to the learnonline page for further information regarding specific clinical confidentiality policies.

### **9. MEDICAL FITNESS FOR CLINICAL PLACEMENTS**

The Course Coordinator may require a student to produce a medical certificate of fitness to practice in a clinical placement. Further information is available in the 'Assessment Policies and Procedures Manual, 2022' (please refer to Section 4, 'Practice-based learning').

### **10. MOBILE PHONE OR INTERNET ACCESS**

The use of mobile phones is only permitted during scheduled breaks. Internet access in the clinical department is only with the clinical mentor's permission.

## **OHS&W**

When an incident or accident occurs while a student is partaking in practical clinical experience (or travelling to or from), the FS24 form is to be completed for University records. The student should also inform their clinical supervisor if an incident occurs. The FS24 form is not an insurance policy claim form. The process to manage the incident forms is located on the website:

<https://study.unisa.edu.au/contentassets/bf331f8eacb94c06b567ebde03c067ba/fs24.pdf>

## **Further Course Information**

### **STUDENT PROGRESSION THROUGH THE PROGRAM**

Students are to complete clinical courses in strict numerical order. Throughout the program, clinical courses are assessed on a graded basis.

### **CLINICAL CONFIDENTIALITY**

Information concerning patients is confidential. The student must hold in strictest confidence any information gained from any source concerning the patient. The student must not identify a patient in any way in any teaching strategy i.e. oral presentation, assignment, case report, clinical record or online discussion. All information taken from the placement must not have patient identification details present. It is unacceptable to cover the patient details with any kind of marker (ie tipex or texta). Doctors' reports or request forms must not be reproduced, but in instances where this information is required for an assessment, this information may be summarised.

**Instances where patient confidentiality has not been observed will be penalised with a '0' mark for that assessment and may result in a fail grade for this course.**

# Learning Resources

## Textbook(s)

There are no textbooks listed for this course.

## Reference(s)

Students will require continual access to the following text(s) in order to complete this course. The library has online copies of most of the books listed below, however, hard copy books are in limited numbers and therefore it is recommended to schedule loans if needed. You do not need to buy the book(s).

O'Malley JP, & Ziessman HA 2021, Nuclear Medicine and molecular imaging: the requisites, 5th edn, Elsevier, Amsterdam.  
Available online

Mettler, FA & Guiberteau, MJ 2019, Essentials of Nuclear Medicine Imaging, 7th edn, Saunders Elsevier, Philadelphia.  
Available online

Christian, PE & Waterstram-Rich, K M (eds) 2012, Nuclear Medicine and PET/CT: Technology and Techniques, 7th edn, Mosby, St. Louis.  
Available in hard copy- City East

Saha G. B. 2010, Fundamentals of Nuclear Pharmacy, 6th edn, Springer Science+Business Media, LLC, New York.  
Available online

Theobald T. (ed) 2011, Sampson's Textbook of Radiopharmacy, 4th edn, Pharmaceutical Press, London.  
Available online

Please note: students will be required to access other suitable texts in order to complete written assessments and are required to access journals, electronic materials, catalogues and databases as relevant. Students are expected to refer to a range of reference materials in order to consolidate their knowledge of specialised procedures.

## learnonline course site

All course related materials are available on your learnonline course site which you will be able to access from the 'my Current Studies' section in myUniSA (<https://my.unisa.edu.au>).

### Access to Previous Courses

You will have access to your previous course sites for a period of 4 years. After this time, the course sites will be archived and will be unavailable.

**Note:** course Readings provided via the University Library are only made available to current students and staff due to licensing and copyright restrictions. Students may download their course readings while they are enrolled in the course for their personal research purposes only.



# Assessment

## Assessment Details

Details of assessment submission and return are listed under each assessment task. Assessment tasks will be returned to you within 15 working days of submission.

### Cover sheets

A cover sheet is not required for assessment tasks submitted via learnonline, as the system automatically generates one.

**If the Course Coordinator allows submissions in hard copy format**, you will be required to attach an Assignment Cover Sheet which is available on the learnonline student help (<https://lo.unisa.edu.au/mod/book/view.php?id=1843&chapterid=567>) and in myUniSA.

## Assessment Summary

#	Form of assessment	Length	Duration	Weighting	Due date (Adelaide Time)	Submit via	Objectives being assessed
1	Assignment	2000 words	-	20%	15 May 2022, 9:00 PM	learnonline	CO1, CO3, CO4, CO6
2	Portfolio	-	-	50%	See <i>assessment activities for details</i>	See <i>assessment activities for details</i>	CO6
3	Clinical assessment	-	-	30%	See <i>assessment activities for details</i>	See <i>assessment activities for details</i>	CO1, CO2, CO3, CO4, CO5, CO6, CO7

## Feedback proformas

The feedback proforma is available on your course site.

## Assessments

### Employment Application (Graded)

#### Re-submission

Re-submission is available for this assessment as per APPM 5.2

#### Re-marking

Re-marking is available for this assessment as per APPM 5.1

#### Task

For this assessment the student will be required to prepare a job application in response to a mock advertisement for a Nuclear Medicine Technologist position. Both the advertisement and Job and Person Specification criteria can be accessed from the learnonline page.

There are three (3) components that the student will be required to prepare and submit for this assessment

- 1) cover letter
- 2) résumé and

3) response to an advertisement and Job and Person Specification criteria (i.e. 'Essential Minimum Requirements' and 'Desirable Characteristics')

N.B. For this task there is no specified word limit. The limit is expressed in terms of pages as follows:

- The Cover Letter is limited to one page.
- The CV/Resume is to be no more than two pages in length.
- Addressing the criteria of the Job and Person Specification is limited to two pages
- **The overall application package should not exceed 5 pages in total.**

Please note, that for this assessment the student is not required to adhere to the 'Assignment Layout' information included in this course outline.

For this assessment the student is not required to include names of appropriate referees as part of the résumé. However, it is highly recommended that the student begins to consider appropriate referees for future job applications who can comment on recent clinical performance. It is important to take into account the commitment that this requires of a referee and that not all individuals are able or want to fulfill this role. **It is highly unprofessional to provide an individual's details as a referee without seeking permission from that person each time a job application is submitted.** The consequences of not seeking permission include the risk that the individual will (a) inform the employer that he/she was unaware that her/his name was stated as a referee and (b) not be able to comment on the abilities of the applicant in the position as he/she may not be of the opinion that the applicant has the skills and/or experience to perform the requirements of the job.

Each student is required to submit his/her assignment via Gradebook by the due date.

**Assessments submitted after the due date and time, without a prior negotiated extension, will incur a late penalty as per the UniSA Allied Health and Human Performance Late Submission Policy described in this course outline.**

## Clinical portfolio (Graded)

### Assessment Activities

Name	Sub-weighting	Due date (Adelaide Time)	Submit via	Re-Submission	Re-Marking
Reflective Journal	48%	20 Jun 2022, 9:00 PM	learnonline	Y	Y
Nuclear Medicine Booking System Assignment	48%	6 Jun 2022, 9:00 PM	learnonline	Y	Y
NM Clinical Competency	1%	14 Jun 2022, 9:00 PM	learnonline	N	N
CT Capabilities	1%	25 Jul 2022, 9:00 PM	learnonline	N	N
NM Clinical Attendance Record	1%	14 Jun 2022, 9:00 PM	learnonline	N	N
CT Clinical Attendance Record	1%	25 Jul 2022, 9:00 PM	learnonline	N	N

Further information on re-marking and re-submission is available in the APPM, Chapter 5

### 1. Reflective Clinical Journal

The objective of this assessment is to continue to develop the important skill of reflective practice. By consciously reflecting on a specific event/s, you will strengthen your ability refine crucial clinical skills and attributes, ultimately resulting in a more effective and competent practitioner.

### **Suggested Approach:**

In order to effectively complete this assessment, you may wish to keep a regular reflective journal that documents events, professional interactions or key incidents throughout your clinical placement. This could be hand-written notes in a journal/notebook that you carry with you daily so that you can refer back to these notes. The final submitted assessment will consist of two (2) journal entries taken from two (2) time-points throughout your placement submitted as one word document via gradebook i.e:

- Entry 1 - from first half of placement cycle (i.e. first one to three weeks)
- Entry 2 - from second half of placement cycle (i.e. three to six weeks)

Each journal entry should be a max of 750 words i.e. total journal submission should not exceed **1500 words.**

You are free to structure each journal entry as you wish (as this will somewhat depend on the event you are reflecting on) However, a suggested structure for each submitted journal entry could be :

- Title that includes date of event and which journal entry (i.e. 1, or 2)
- Body of journal entry:
  - **description** of event/occurrence i.e. what happened
  - **feelings** - document your thoughts and feelings regarding the event.
  - **evaluation:** what went well/what didn't go well, how did you feel/react?
  - **analysis** - what would you change for future practice and why? Link this to evidence from the literature where possible.
  - **action plan and implementation** - upon reflection, how will this influence your approach to improve future practice

**Please ensure you maintain confidentiality by not identifying the clinical site, staff, patients or other students. E.g. use terms such as 'Host Placement', 'Colleague', 'Senior Colleague' or fellow student instead of names.**

**Please refer to the learnonline site for more resources on this assessment including the marking proforma.**

**This assessment will be blind-marked. Please do not include your name in any part of the assessment or file name.**

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

## **2. Nuclear Medicine Booking System Assignment**

### Task

Nuclear Medicine Technologists are often called upon to train and assist administrative staff in making patient bookings. Some Nuclear Medicine departments have booking systems with one common booking/appointment screen for all studies while others have separate sections for making bookings on specific gamma cameras and equipment.

Your task for this assessment is to design a Nuclear Medicine booking system for use by administrative staff in making patient bookings for specific Nuclear Medicine studies. Reflect on your clinical experience to date and think about what works well and what doesn't. Ensure your bookings follow clinically appropriate protocols (either from placement or the literature).

The Nuclear Medicine department in question has the following personnel, equipment and referral base:

### **Personnel**

- Two Nuclear Medicine physicians, including the Director
- No radiopharmacist or physicist
- One registered nurse
- Five registered Nuclear Medicine Technologists, including the Chief Technologist
- One medical orderly

### **Equipment**

Three gamma cameras including:

- One SPECT capable dual headed camera
- One SPECT/CT capable dual headed gamma camera
- One general purpose single headed camera with whole body scanning facility (no SPECT)
- One DEXA bone densitometer
- One Technegas generator
- One cardiac stress room with treadmill
- One injection room/interview room
- One uptake room/resting room with barouche/bed & injection facilities
- Two  $^{99m}\text{TcO}_4^-$  deliveries per day - 20GBq (0730h) and 10GBq (1000h)
- Specific dose orders are arranged as required for  $^{99m}\text{Tc}$  Sestamibi,  $^{99m}\text{Tc}$  ECD and  $^{67}\text{Gallium}$  (please note: quality control is performed by the supplier)

### **Referral Base**

The department services a 500 bed hospital with inpatients, outpatients and private patients. It also has paediatric, geriatric, medical and surgical wards including intensive care and high dependency units.

A typical week in the Nuclear Medicine department includes the following range and number of studies:

- 35 whole body bone scans
- 10 bone scans - specific parts (at least 50% include SPECT/CT)
- 6 lung ventilation and perfusion studies
- 4 biliary studies
- 8 2K renal studies
- 2  $^{99m}\text{Tc}$  ECD brain studies
- 6 gated cardiac blood pool studies
- 6  $^{99m}\text{Tc}$  Sestamibi stress/rest myocardial perfusion studies (with attenuation correction and gated acquisition)
- 10  $^{99m}\text{TcO}_4^-$  thyroid scans
- 1 whole body  $^{67}\text{Gallium}$  study (with SPECT/CT)
- 1 labelled leucocyte study for ?Crohn's disease (with SPECT/CT)
- 1 gastric emptying study (adult)
- 1 gastro-oesophageal reflux study (paediatric)
- 1 shunt patency study (paediatric)
- 2 parathyroid scans (with SPECT/CT)
- 20 bone density studies

### **Notes/tips:**

- Different sections for specific equipment and allocated time slots for each of the studies listed under this assignment information. Obviously, this will be unrealistic to some extent, since a number of studies will be regarded as urgent and requested to be completed on the day of booking.
- The purpose of this assessment is to design the ideal work-flow for this Nuclear Medicine

department, given the staff and resources available. Don't forget personnel lunch breaks! Ensure it is clear to the marker regarding start/finish times for each staff member and their associated responsibilities.

- This task should be designed in a typical digital booking system format (i.e. not just a typed word document). Presenting the booking system in an excel file is recommended (with tabs for each day or camera as appropriate). Ensure the bookings for each patient can be followed by the marker i.e. WB Bone 1 (Injection) and WB Bone 1 (Delayed Scan). Use colour and number coding as appropriate.
- It is also recommend that you also include an explanation page (maximum two pages) at the beginning of the booking system - please don't assume administrative staff (or the assessor of this assessment) will be able to guess your intentions e.g. the general purpose single headed gamma camera is to be used for thyroid scanning as it has a pinhole collimator.

**This assessment will be blind-marked. Please do not include your name in any part of the assessment or file name.**

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

### **3. NM Clinical Competency Assessment**

These assessments are a series of short practical examinations on specific Nuclear Medicine procedures. The recommended minimum number of Clinical Competencies which are to be successfully completed whilst in the clinical setting for Nuclear Medicine Clinical Practice 4 is two (2). By the completion of Nuclear Medicine Clinical Practice 4, the student must have completed a minimum of seven (7) competencies in total (this includes competencies successfully achieved in previous clinical courses).

The student is to be supervised and assessed by the Clinical Supervisor or a delegated technologist (ideally someone with more than 12 months Nuclear Medicine experience).

The student must reach the level of competency in this assessment for the chosen examination.

If you are deemed NOT COMPETENT in any aspect of the examination please do not use this examination as the assessment. This competency can be attempted later when you feel more confident.

The student must be deemed competent in all aspects of the competency to achieve a pass for this assessment. The examination components for each competency vary slightly. Please refer to each competency for the examination criteria.

It is the student's responsibility to supply the Clinical Supervisor or delegated technologist with the relevant Clinical Competency at the time of assessment and to ensure that the completed Clinical Competency Assessment and the Clinical Portfolio reach the Course Coordinator by the due date specified in this booklet.

The Clinical Competency Assessments and further information are provided in the Clinical Portfolio.

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

### **4. CT Clinical Capabilities**

These are to be completed during the two week CT placement. Both Part 1 and 2 must be completed:

Part 1 - Observation

The student is required to observe CT procedures to gain background knowledge ready to move on to Part 2.

Part 2 - Capabilities

To complete the CT section of the clinical portfolio, the student will need to be assessed in each element across

all four examinations (15 elements in total).

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

#### **5. NM Clinical Attendance Record**

Correctly completed clinical attendance records must be submitted by the due date. Absent days must be communicated as per the Clinical Attendance Policy.

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

#### **6. CT Clinical Attendance Record**

Correctly completed clinical attendance records must be submitted by the due date. Absent days must be communicated as per the Clinical Attendance Policy.

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

#### **Attendance Records:**

**These must be completed by the student. Instructions are included in the Clinical Portfolio. It is the student's responsibility to ensure that the Attendance Record is countersigned each day by the clinical supervisor/delegated mentor. Copies of the Attendance Record are provided in the Clinical Portfolio.**

**Failure to complete the required clinical hours, incorrectly completed attendance record, missing signatures and dates or failure to submit the Clinical Portfolio and Attendance Record may result in a fail grade for this course.**

#### **\*Further Attendance Information:**

The CPU will roster the student via InPlace rostering system to a nuclear medicine clinical department for a total of six (6) weeks during Study Period 3, in accordance with the published teaching schedule for the Bachelor of Medical Radiation Science (Nuclear Medicine) program.

In addition to this, for 2022, the CPU will roster the student to attend a diagnostic CT department for a total of two (2) weeks.

Students are required to attend all scheduled clinical days, subject to the Clinical Attendance policy of this program. This policy can be found via the CPU website: [https://i.unisa.edu.au/siteassets/students/health/documents/cpu/clinical\\_attendance\\_policy-medrad.pdf](https://i.unisa.edu.au/siteassets/students/health/documents/cpu/clinical_attendance_policy-medrad.pdf)

If a student is unable to attend clinical placement due to compassionate or medical reasons he/she must contact the Clinical Supervisor at the placement no later than 9.00am (or the scheduled start time for that placement) and email (or telephone) the Course Coordinator.

It is compulsory for students to have at a minimum 30 minutes break for lunch, away from the Nuclear Medicine scanning area, preferably outside of the department completely. Students are required to record on their Attendance Record the date, actual start and finish times (even if the Clinical Supervisor allows the student to leave the clinical site earlier than anticipated), lunch breaks and total hours per day for each full day (7.5 hours) attended at the clinical placement. Total clinical hours will be calculated based on students having a minimum 30 minutes break for lunch and this 30 minute lunch break cannot be substituted for missed clinical time. Tea breaks may be given at the discretion of the Clinical Supervisor or the delegated Clinical mentor.

### **Pre-clinical workshops:**

The pre-clinical workshops are considered part of your clinical experience and you are, therefore, expected to attend and or participate in all pre-clinical workshop sessions. All important clinical information will be discussed at the pre-clinical workshop. This is your opportunity to ask questions about any aspect of clinical placement. Students must attend and participate in all pre-clinical workshops in order to pass this course. An attendance record will be kept and any missed days will need to adhere to the medical radiation clinical attendance policy and will be counted as a missed clinical day.

### **Attendance Records:**

These must be completed by the student. Instructions are included in the Clinical Portfolio. It is the student's responsibility to ensure that the Attendance Record is countersigned each day by the clinical supervisor/ delegated mentor. Copies of the Attendance Record are provided in the Clinical Portfolio.

Failure to complete the required clinical hours, incorrectly completed attendance record, missing signatures and dates or failure to submit the Clinical Portfolio and Attendance Record may result in a fail grade for this course.

## Clinical Supervisor Report (Graded)

### Assessment Activities

Name	Sub-weighting	Due date (Adelaide Time)	Submit via	Re-Submission	Re-Marking
NM Clinical Supervisor Report	99%	14 Jun 2022, 9:00 PM	learnonline	N	N
CT Placement Report	1%	25 Jul 2022, 9:00 PM	learnonline	N	N

Further information on re-marking and re-submission is available in the APPM, Chapter 5

The Clinical Report comprises both a Formative and Summative component:

#### **NM Formative Clinical Report**

The Formative Clinical Report will be completed by the Clinical Supervisor (in collaboration with other mentors involved with that student during the placement) mid-way through each placement as an indicator of progress highlighting strengths and areas for improvement. This does not contribute to the final grade. The contents of this Clinical Report should be discussed with the student. The student is encouraged to comment in the space provided. The Clinical Report is to be signed by the Clinical Supervisor and by the student. The student (or Clinical Supervisor) may also request a formative report at any stage during the clinical placement as a way of obtaining (or providing) feedback about their progress during their clinical placement.

#### **NM Summative Clinical Report**

The Summative Clinical Report is completed by the Clinical Supervisor (in collaboration with other mentors involved with that student during the placement) at the end of the placement.

If the student is rostered for two separate clinical placements, a separate Summative Clinical Report for each placement must be submitted by the due date. The results of each will be averaged to achieve a final mark. The contents of this Clinical Report should be discussed with the student who is encouraged to comment in the space provided. The Clinical Report is to be signed by the supervisor and by the student.

**Students must achieve a pass mark of 50% or greater in the Summative Clinical Report to pass this course.**

**A satisfactory grade in the Summative section of 'Safe Practice and Duty of Care' and 'Professional and Ethical Conduct' is required to pass Nuclear Medicine Clinical Practice 4. Please ensure that this section has been completed by your Clinical Supervisor.**

#### **CT Clinical Report**

The CT clinical report will be completed by your CT supervisor for your CT clinical placement. Students will

need to pass 'Safe Practice and Duty of Care' and 'Professional and Ethical Conduct' in order to pass this report. This report must be passed to pass Nuclear Medicine Clinical Practice 4.

**Be sure to hand the report forms to your Clinical Supervisor early in the placement so they have sufficient time to complete them.**

**The UniSA Allied Health and Human Performance late assessment policy (described in this course outline) will be applied to any assessment submitted after the due date/time where a pre-approved extension was not granted.**

## Submission and return of assessment tasks

See above under Assessment details.

## Penalties for late submission

### Late submission of assessment tasks policy

Late submission of assessment tasks in this course will result in a penalty unless an extension has been granted or the student can provide evidence of unexpected or exceptional circumstances as defined by Section 7.8 in the Assessment Policies and Procedures Manual.

The penalty for late submissions will be:

1. a deduction of 10% of the available marks, for each day (or part thereof) that the assignment is late up to a maximum of 5 days.

Thus, for an assessment item that is one day late the maximum mark available will be 90%, and for two days late 80% etc. By way of example, if a student achieved a mark of 65% for an assignment that was submitted one day late, their adjusted mark would be 65% of a total available mark of 90%, so the mark would be adjusted to 58.5%.

2. assignments which are more than 5 days late may not be assessed and will be assigned a zero grade inclusive of non-graded pass work. Whether or not an assignment that is more than 5 days late will be assessed will be at the discretion of the Course Coordinator.

### Rationale for Late submission of assessment tasks policy

If unexpected or exceptional circumstances (as defined by Section 7.8 in the Assessment Policies and Procedures Manual) occur that result in late submission, or if an extension has been granted for an assessment item, there will be no penalty.

However, where no extension has been granted, and there were no unexpected or exceptional circumstances that resulted in late submission a penalty will be applied. This is to prevent students from seeking to obtain an unfair advantage, compared with their peers, by having more time to complete an assessment item.

It was considered that if a student were to work on an assessment item for one day they might be able to improve their mark by 10%, so a 10% penalty has been applied to offset any such advantage that might be gained.

The 10% deduction will be from the available mark rather than the achieved mark to ensure equity between students. By way of example:

1) If a student achieved a mark of 77 (Distinction), but the assessment item was submitted two days late, their grade becomes 77% of 80 = 61.6 which is a true 20% reduction.

If the 20% deduction were applied to the achieved mark this would be  $77\% - 20\% = 57\%$ , which would actually represent a 26% reduction of their achieved grade.

2) If a student achieves a mark of 54 (P2) and is 2 days late in submitting the assessment item, their grade becomes 54% of 80 = 43.2 which is a true 20% reduction. If the 20% deduction were applied to the achieved mark this would be  $54\% - 20\% = 34\%$  which represents an actual 37% reduction of their achieved grade.

Thus, if the deduction were applied to the achieved mark both students would experience a different real deduction depending on the actual mark they achieved. Thus, in the interest of student equity the deduction will



be taken from the available mark.

## Exam Arrangements

This course does not have an exam.

## Supplementary Assessment

Supplementary assessment or examination has not been approved for this course.

## Important information about all assessment

All students must adhere to the University of South Australia's policies about assessment: <http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/>.

## Additional assessment requirements

Students must meet all requirements of the clinical placements, participate in all pre-clinical workshops and pass the clinical report in order to pass this course.

## Students with disabilities or medical conditions

Students with disabilities or medical conditions or students who are carers of a person with a disability may be entitled to a variation or modification to standard assessment arrangements. See Section 7 of the Assessment Policy and Procedures Manual (APPM) at: <http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/> and Policy C7 Students with Disability at: <https://i.unisa.edu.au/policies-and-procedures/university-policies/corporate/c-7/>

Students who require variations or modifications to standard assessment arrangements must first register for an Access Plan with the UniSA Access & Inclusion Service. It is important to contact the Access & Inclusion service early to ensure that appropriate support can be implemented or arranged in a timely manner.

Students who wish to apply for an Access Plan must book an appointment with a UniSA Access & Inclusion Advisor by contacting Campus Central or via the Online Booking System in the Student Portal. For more information about Access Plans please visit: <https://i.unisa.edu.au/students/student-support-services/access-inclusion/>

Once an Access Plan has been approved, students must advise their Course Coordinator as early as possible to ensure that appropriate supports can be implemented or arranged in a timely manner.

Students are advised there are also strict deadlines to finalise Access Plan arrangements prior to examinations. Further information is available at: [http://i.unisa.edu.au/campus-central/Exams\\_R/Before-the-Exam/Alternative-exam-arrangements/](http://i.unisa.edu.au/campus-central/Exams_R/Before-the-Exam/Alternative-exam-arrangements/)

## Deferred Assessment or Examination

Deferred assessment or examination is not available for this course. APPM 7.5

## Special Consideration

Special consideration is not available for this course. APPM 7.6

## Variations to assessment tasks

Details for which variation may be considered are discussed in section 7 of the Assessment Policy and Procedures Manual. Variation to assessment in unexpected or exceptional circumstances should be discussed with your course coordinator as soon as possible.

More information about variation to assessment is available in section 7 of the Assessment Policy and Procedures Manual. <http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/>

Students with disabilities or medical conditions please refer to **Students with disabilities or medical conditions**.

## Academic Integrity

Academic integrity is the foundation of university life and is fundamental to the reputation of UniSA and its staff and students. Academic integrity means a commitment by all staff and students to act with honesty, trustworthiness, fairness, respect and responsibility in all academic work.

An important part of practising integrity in academic work is showing respect for other people's ideas and being honest about how they have contributed to your work. This means taking care not to represent the work of others as your own. Using another person's work without proper acknowledgement is considered Academic Misconduct, and the University takes this very seriously.

The University of South Australia expects students to demonstrate the highest standards of academic integrity so that its degrees are earned honestly and are trusted and valued by its students and their employers. To ensure this happens, the University has policies and procedures in place to promote academic integrity and manage academic misconduct. For example, work submitted electronically by students for assessment will be examined for copied and un-referenced text using the text comparison software Turnitin <http://www.turnitin.com>.

It is an offence for any person or company to provide academic cheating services to students of Australian universities, irrespective of whether the service is provided by an Australian or overseas operator (see [Tertiary Education Quality and Standards Agency Amendment \(Prohibiting Academic Cheating Services\) Bill 2019](https://www.legislation.gov.au/Details/C2020A00078) - <https://www.legislation.gov.au/Details/C2020A00078>). "Academic cheating services" includes providing or undertaking work for students, where that work forms a substantial part of an assessment task.

More information about academic integrity and what constitutes academic misconduct can be found in Section 9 of the Assessment Policies and Procedures Manual (APPM): <http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/>.

To learn more on academic integrity and how to avoid academic misconduct, please refer to the Academic Integrity Module: <https://lo.unisa.edu.au/mod/book/view.php?id=252142>

## Further Assessment Information

### LATE SUBMISSION OF ASSESSMENTS

Please refer to the UniSA Allied Health and Human Performance late assessment policy found under 'Penalties for Late Submission' section of this course outline.

### ASSIGNMENT LAYOUT

All assignments for this course, unless otherwise stated, are to use the following layout – 1.5 line spacing, 12 size font, 2.5cm margins all round. Please submit as a word document to Gradebook.

### WORD COUNT

If a word count is identified the word count will include all in-text referencing and tables, but not the reference list. There is no 10% rule. If students exceed the word count, they will be penalised by staff not marking the "additional" words.

### REFERENCING STYLE

The UniSA Harvard Author Date is to be used for all assessments unless otherwise specified. Please go to <https://lo.unisa.edu.au/course/view.php?id=3839> for further guidance on referencing.

Not referencing or acknowledging another person's ideas or work, including previously published material and figures, is considered plagiarism. Plagiarism is a form of academic misconduct and if the actions of a student are indicative of plagiarism, the student will be referred to the Allied Health and Human Performance academic integrity officer for further investigation.

## Action from previous evaluations

To remain current and meet Medical Radiation Practice Board of Australia (MRPBA) requirements, and to be more transparent in our record keeping of your capabilities, several additions/changes have been made to the Clinical Portfolio/Workbook. Revisions have been made to the Nuclear Medicine Booking System Assignment.

## Unplanned learnonline outages

The information below show the suggested alterations/considerations for assessment items and exam dependent on the duration of the unplanned outage

**less than 1 hour outage.** No impact on either assessment or examination

**1 to 4 hour outage.** **Assessment** - Consider an extension. **Examination** - No impact.

**4 to 24 hour outage.** **Assessment** - 24 hour extension. **Examination** - Be mindful of outage when marking

**Over 24 hour outage.** **Assessment** - 48 hour extension. **Examination**- Be mindful of outage when marking

# Course Calendar

## Study Period 3 - 2022

	Weeks	Topic	Assessment Details (Adelaide Time)	Public Holidays
1	25 April - 1 May	CP4 Pre-clinical workshop		Anzac Day 25 Apr 2022
2	02 - 8 May	NM Clinical		
3	09 - 15 May	NM Clinical	Employment Application due 15 May 2022, 9:00 PM	
4	16 - 22 May	NM Clinical		
5	23 - 29 May	NM Clinical		
6	30 May - 5 June	NM Clinical		
7	06 - 12 June	NM Clinical	Clinical portfolio: Nuclear Medicine Booking System Assignment due 06 Jun 2022, 9:00 PM	
8	13 - 19 June	BREAK	Clinical portfolio: NM Clinical Attendance Record due 14 Jun 2022, 9:00 PM  Clinical Supervisor Report: NM Clinical Supervisor Report due 14 Jun 2022, 9:00 PM  Clinical portfolio: NM Clinical Competency due 14 Jun 2022, 9:00 PM	Queen's Birthday 13 Jun 2022
9	20 - 26 June	BREAK/PEP1 PRE-CLINICAL SESSIONS (ONLINE)	Clinical portfolio: Reflective Journal due 20 Jun 2022, 9:00 PM	
10	27 June - 3 July	CT Placement Block A		
11	04 - 10 July	CT Placement Block A		
12	11 - 17 July	CT Placement Block B		
13	18 - 24 July	CT Placement Block B		
14	25 - 31 July	NM PEP1 Commences	Clinical Supervisor Report: CT Placement Report due 25 Jul 2022, 9:00 PM  Clinical portfolio: CT Capabilities due 25 Jul 2022, 9:00 PM  Clinical portfolio: CT Clinical Attendance Record due 25 Jul 2022, 9:00 PM	