



**University of  
South Australia**

**Radiation Therapy Break out room**

# Agenda

RT Team

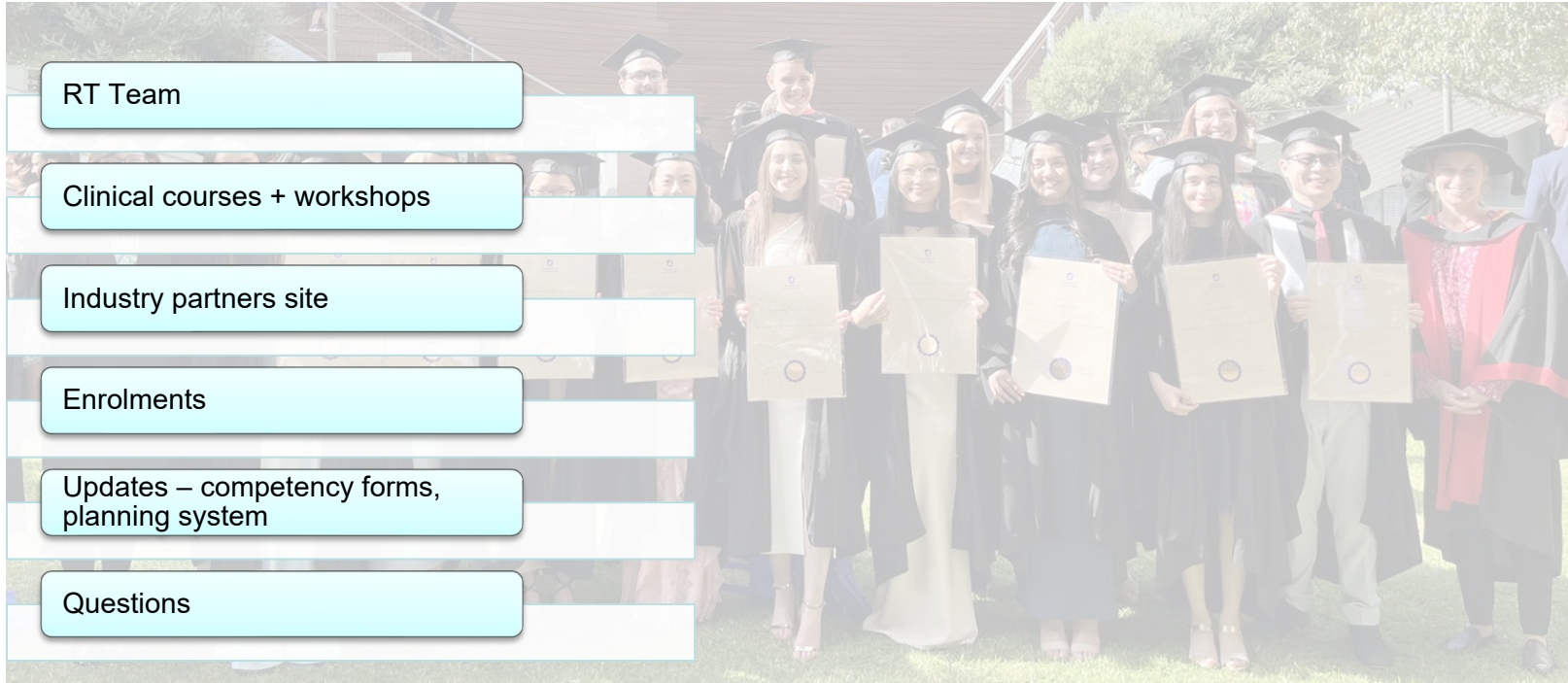
Clinical courses + workshops

Industry partners site

Enrolments

Updates – competency forms,  
planning system

Questions



# Radiation Therapy Academic team



Michala Short



Eileen Giles



Eva Bezak



Donna Matthews



Lisa Cunningham

# Clinical courses

2024 (RT) Non-Honours Clinical Grid

week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52								
	January					February					March					April					May					June					July					August					September					October					November					December				
Yr 1											SP2 Aboriginal Health HA 100 H Phys 100 Intro Med Rad					SP2 Aboriginal Health HA 100 H Phys 100 Intro Med Rad										SP5 Pathology MR Hum Anat (MRHA) H Phys 101 Physics 100					SP5 Pathology MRHA H Phys 101 Physics 100																													
Yr 2											SP2 HA 201 (G&S) Psychology Studies 1 Physics 200					SP2 HA 201 (G&S) Psychology Studies1 Physics 200										SP4 Clinical Prac 1A 4.5 units 2 weeks					SP5 Studies 2 iEBP Physics 300					SP5 Studies 2 iEBP Physics 300										SP4 Clinical Practice 1B 4.5 units 3 weeks														
Yr 3											SP2 Studies 3 AEBP Elective CT & PET					SP4 Clinical Practice 2A 9 units 3 weeks					SP3 AEBP Elective CT & PET										SP5 Studies 4 Specialised					SP4 Clinical Practice 2B 9 units 6 weeks																								
Yr 4											SP2 Clinical Practice 3 9 units 6 weeks					SP3 Clinical Practice 4 9 units 6 weeks										SP5 Professional Entry Practice 1 9 units 6 weeks										SP6 Professional Entry Practice 2 9 units 6 weeks																								
week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52								

KEY:

Shared academic course	Regular University breaks	Clinical course (Placement)	One hour CP1 workshop per week
Discipline specific academic course	Exam period	Pre-clinical workshop	AEBP On-campus workshop

## Course coordinators

Yr 2	CP1	Michala Short
Yr 3	CP2	Eileen Giles
Yr 4	CP3	Eileen Giles
	CP4	Lisa Cunningham
	PEP1	Eileen Giles
	PEP2	Donna Matthews



University of  
South Australia

# Pre-clinical workshops

- Communication role plays
  - CP1: treatment setup, in groups
  - CP3: difficult conversations, in pairs
  - CP4: first day chats, individual
- Simulated competencies (SXR, CTsim, planning)
- IPL with Rad Onc registrars
- Mock clinics – CP1, CP3 IPL with Nuc Med students



# Industry partners site

- Clinical placement information
- Clinical maps
- Course dates and coordinator names

[Course: Program information for industry partners - Medical Radiation | learnonline \(unisa.edu.au\)](#)





General



News Forum

Social Forum

Clinical Grids



Clinical Supervisor  
Meetings



Clinical Policies

Medical Imaging  
Resources



Nuclear Medicine  
Resources



Radiation Therapy  
Resources



Home > [NCOO400](#) > General

## General



# Medical Radiation Sciences

## *Industry Partner Information Page*

## Welcome

This industry partner page provides valuable resources for clinical educators, supervisors and mentors including:

- clinical policies and procedures
- clinical grids
- ongoing support, training and information for you as a supervisor
- contacts here at the university
- course information

We welcome feedback regarding the usefulness of this website, so please contact any of the Medical Radiations teaching team:

# Medical Radiation Academic Team

# 2024 Enrolments

- Year 1 28
- Year 2 19
- Year 3 16
- Year 4 9 (2 Hons)

## HDR students

2 x PhD

1 x Masters

2023 graduates = 17 (All employed)





# New compo



## Bachelor of Medical Radiation Science Program – Radiation Therapy Competency Assessment Form – PLANNING PAGE 1 Clinical Practice 3

Location ..... Planning system .....

Anatomical site ..... Competency number ..... Date .....

Intent: Radical / Palliative Planning technique: 3D Conformal / IMRT/VMAT / Electrons

N = Not Competent / D = Developing / C = Competent Please refer to page 2 for details of pass levels in different courses.

### DATA SET PREPARATION + ORGANS AT RISK

Localisation accurate	N	D	C	Relevant OARs contoured
Couch removal accurate	N	D	C	Contouring accurate
External ROI + markers contoured	N	D	C	Density overrides consider

### PRESCRIPTION + POINTS

Prescription appropriate for plan technique	N	D	C	Isocentre position appropriate
Prescription set correctly	N	D	C	Dose point position appropriate

### BEAMS

Beam arrangement is effective (Target coverage + normal tissue dose ALARA)	N	D	C	Beam energy appropriate	
Field sizes are appropriate	N	D	C	Other beam geometry appropriate (beam and collimator angle)	
Bolus has been created accurately	n/a	N	D	C	Bolus applied to correct body

### 3D CONFORMAL (select)

Beam weighting optimised	N	D	C	Beam modifiers applied if required
Shielding applied effectively	N	D	C	Beam modifiers used: Please specify, e.g.: wedge / filter

### IMRT/VMAT (select)

IMRT parameters set correctly	N	D	C	Target optimiser functions used if required
Target evaluation volumes used if required (trimmed/no overlap)	N	D	C	OAR optimiser functions used if required
Optimisation volumes used if required	N	D	C	Correct Target and OAR geometries protocols/site/dose specified

### ELECTRONS (select)

Block shielding created correctly	N	D	C	Normalisation appropriate
-----------------------------------	---	---	---	---------------------------

### PLAN EVALUATION + DISCUSSION

Dose grid	N	D	C	Max + Min dose to target volumes acceptable	N	D	C
Dose resolution	N	D	C	Reproducible for treatment	N	D	C
Plan homogeneity	N	D	C	Understand QA workflow	N	D	C
Plan conformity	N	D	C	Understand target verification for treatment	N	D	C

FEEDBACK: (Please provide feedback on areas considered developing/not competent)

### Overall PASS

YES   
NO

Supervisor name: \_\_\_\_\_ Signature: \_\_\_\_\_ Line code: \_\_\_\_\_

REFER TO THE NEXT PAGE FOR COMPETENCY EXPECTATIONS AND TO ENTER FURTHER NOTES



## Bachelor of Medical Radiation Science Program – Radiation Therapy Competency Assessment Form – TREATMENT Clinical Practice 3

Placement location ..... Date .....

Procedure ..... Competency number .....

All boxes must be ticked (except N/A for tasks Not applicable) to indicate that an overall pass has been achieved.

### PATIENT & ROOM PREPARATION

### COMMENTS

Patient notes/alerts/infectious status checked.

Appropriate treatment prep identified (premeds, fasting, bladder/bowel protocol)

Immobilization prepared correctly.

Motion management prepared correctly if applicable

### TECHNIQUE & EQUIPMENT

Correct patient positioning on treatment couch

Levelled, straightened and isocentre set appropriately.

Ancillary equipment applied correctly (bolus, packing etc.)

Problem solving applied effectively.

Infection control & manual handling (OHS&W) completed safely

### COMMUNICATION

Introduced self and engaged appropriately with patient.

Patient ID confirmed (3 identifiers, e.g.: Name, DOB, UR)

Clear directions explained to patient pre, during and post treatment.

Clear communication & teamwork with staff

Identified/communicated other appts (review, wound dressings, dietitian etc.)

### QUALITY ASSURANCE & TREATMENT DELIVERY

"Time Out" completed - Patient ID, site, setup and isocentre checked.

Additional required checks completed (FSO, light field, gantry clearance etc.)

Competent and safe operation of Linac

Competent and safe operation of treatment console  (select if N/A)

Patient monitored throughout treatment  (select if N/A)

### IMAGING - Leave blank if student did not undertake online image match (select)

Relevant departmental imaging protocol followed.

Patient specific image match guidelines checked.

Competent operation of anatomical matching software.

### GENERAL KNOWLEDGE

Primary disease and treatment intent known and understood.

Understands prescription & technique for treatment.

Understanding of patient's clinical condition and potential side effects.

### OVERALL COMPETENT FOR THIS ASSESSMENT (please confirm)

Supervisor Name: \_\_\_\_\_ Supervisor Signature: \_\_\_\_\_ Line Code: \_\_\_\_\_

Planning competency levels relative to clinical course development.  
A result of not competent (N) in any element means an overall pass was not achieved.

Year 3	
CP2	Demonstrate beginning level computer planning skills and knowledge. All elements must be competent (C) or developing (D)
Year 4	
CP3	Produce and evaluate 3D conformal, IMRT and electron treatment plans of standard abdomen, chest, breast, and head and neck, demonstrate intermediate level computer planning skills and knowledge. C is required for Dataset Prep & OAR + Prescription + Beams D is acceptable in IMRT/VMAT and no more than 6 remaining sub-elements
CP4	Produce and evaluate 3D conformal, IMRT electron treatment plans of standard techniques, demonstrate advanced level computer planning. C is required for Dataset Prep & OAR + Prescription + Beams D is acceptable in IMRT/VMAT and no more than 4 remaining sub-elements
PEP1	Produce and evaluate complex treatment plans, incorporating multi-modality imaging of standard techniques, demonstrate advanced level computer planning. C is required for Dataset Prep & OAR + Prescription + Beams + Plan Evaluation D is acceptable in IMRT/VMAT and no more than 2 remaining sub-elements
PEP2	Produce and evaluate complex treatment plans (incorporating multi-modality imaging of standard techniques) and demonstrate computer planning skills and knowledge to the standard of an entry level practitioner. C is required for Dataset Prep & OAR + Prescription + Beams + Plan evaluation D is acceptable in IMRT/VMAT sub-elements

# New CT Competency form (PEP1 & 2)



University of  
South Australia



## Bachelor of Medical Radiation Science Program – Radiation Therapy Competency Assessment Form – CT Simulation

Student Name..... Placement location.....

Procedure ..... Competency number ..... Date .....

All boxes must be ticked (except N/A for tasks Not applicable) to indicate that an overall pass has been achieved.

PATIENT & ROOM PREPARATION	COMMENTS	
Patient notes/alerts/infectious status etc. checked.	<input type="checkbox"/>	
CT Sim request completed by RO	<input type="checkbox"/>	
Patient Consent signed.	<input type="checkbox"/>	
Appropriate treatment prep identified (e.g. contrast, fasting, bladder/bowel prep)	<input type="checkbox"/>	
Immobilisation prepared correctly.	<input type="checkbox"/>	
Motion management prepared correctly <input type="checkbox"/> (select if N/A)	<input type="checkbox"/>	
COMMUNICATION		
Introduced self and engaged appropriately with patient	<input type="checkbox"/>	
Patient ID confirmed (3 identifiers, eg. Name, DOB, LR)	<input type="checkbox"/>	
Clear directions explained to patient pre, during and post procedure	<input type="checkbox"/>	
Appropriate communication & teamwork with staff	<input type="checkbox"/>	
TECHNIQUE		
Correct patient positioning on CT couch (levelled + straightened)	<input type="checkbox"/>	
Immobilisation indexed + appropriate tattoo (x) positions determined	<input type="checkbox"/>	
Ancillary equipment made correctly as per dept protocols (if yes, specify. Or select if N/A <input type="checkbox"/> )	<input type="checkbox"/>	
Competent and safe operation of CT machine (eg. checks pt fits safely through bore)	<input type="checkbox"/>	
Infection control & manual handling (OHS&W) completed safely	<input type="checkbox"/>	
IMAGING PROCEDURE		
'Time Out' completed - Patient ID, diagnosis, setup and scan limits checked	<input type="checkbox"/>	
Determined appropriate length of CT scan from scout image	<input type="checkbox"/>	
Appropriate radio-opaque markers / wires used for scan	<input type="checkbox"/>	
Competent and safe operation of CT console <input type="checkbox"/> (select if N/A)	<input type="checkbox"/>	
Competent participation in 4D motion management system <input type="checkbox"/> (select if N/A)	<input type="checkbox"/>	
	Specify motion management technique used:	
DOCUMENTATION & QUALITY ASSURANCE		
Correct departmental CT Sim record used for patient referencing	<input type="checkbox"/>	
Checked CT dataset to ensure accurate and all relevant structures included	<input type="checkbox"/>	
Correct anatomical and immobilisation landmarks documented	<input type="checkbox"/>	
Ancillary/immobilisation equipment appropriately labeled and stored	<input type="checkbox"/>	
Reference tattoos performed safely and accurately <input type="checkbox"/> (select if N/A)	<input type="checkbox"/>	
GENERAL KNOWLEDGE		
Understands intent, prescription & technique for treatment and how that applies to chosen immobilisation/patient setup.	<input type="checkbox"/>	
Supervisor Name:	Supervisor Signature:	Line Code:

# Planning system upgrade

- RayStation TPS coming to UniSA later this year
- 22 licences with remote access available via Citrix
- Will phase into teaching- some overlap with current Pinnacle TPS
- Full range of planning functionality – photon (incl VMAT), electron, proton, Tomo, CyberKnife, Brachy
- Thanks to Pinnacle for 20+ years of service!



# Question time

