

Medical radiation practice accreditation guidance material

Contents

Purpose o	of this do	ocument	3
Medical ra	diation	practice and accreditation in Australia	3
Using this	docume	ent	3
_		ou'	
_	-	nis document	
Additional	l guidano	ce – completing the application form	4
Templates	S		5
Field 1:	Educ	cation provider registration and course accreditation	6
Stand	dard 1.1	Education provider registration	6
Stand	dard 1.2	Course accreditation	6
Field 2:	Gove	ernance, management and resourcing standards	8
Stand	dard 2.1	Education provider standing	8
Stand	dard 2.2	Financial viability and sustainability	9
Stand	dard 2.3	Corporate and academic governance	10
Stand	dard 2.4	Primacy of academic quality and integrity	11
Stand	dard 2.5	Management and human resources	12
Stand	dard 2.6	Responsibilities to students	13
Stand	dard 2.7	Physical and electronic resources and infrastructure	15
Stand	dard 2.8	Clinical education	16
Field 3:	Educ	cation provider attributes	20
Stand	dard 3.1	Education provider standards	20
Field 4:	Prog	ram attributes	22
Stand	dard 4.1	Program design	22
Stand	dard 4.2	Program resourcing and information	26
Standard 4.3		Admission criteria	27
Standard 4.4		Teaching and learning	28
Standard 4.5		Assessment and expected learning outcomes	30
Stand	dard 4.6	Program monitoring, review, updating and termination	31
Field 5:	Qual	ification attributes	34

Standard 5.1	Certification documents	34
Standard 5.2	Articulation, recognition of prior learning and credit arrangements	35
Field 6: Pro	fessional capabilities of medical radiation practice program graduates	37
Standard 6.1	Professional and ethical conduct	37
Standard 6.2	Communication and collaboration	38
Standard 6.3	Evidence based practice and professional learning	39
Standard 6.4	Radiation safety and risk management	41
Standard 6.5	Practice in medical radiation sciences	42
Standard 6.6	Practice in diagnostic radiography	44
Standard 6.7	Practice in nuclear medicine	45
Standard 6.8	Practice in radiation therapy	47
Glossary		49
List of acronyms		51

Version number	Date of issue
1.0	January 2014
1.1	March 2014
1.2	April 2015
2.0	May 2015
3.0	September 2016

Preamble

Purpose of this document

This document is an essential companion to the *Application for accreditation assessment*. It is primarily for education providers who are preparing an application for accreditation assessment.

It guides education providers on what details you must include against each accreditation standard to show that you meet the standard. It includes the types of information you may choose to submit with your application as supporting evidence of how you meet each standard.

This document may be of interest to other stakeholders.

Medical radiation practice and accreditation in Australia

Medical radiation practice education began in Australia in the 1950s at technical colleges. In the 1970s programs were offered through higher education tertiary institutions when the government introduced Colleges of Advanced Education. Later, institutions of technology delivered medical radiation practice education until the Commonwealth abolished this sector in 1991 and delivery of programs transferred to universities. During this period, medical radiation practice education changed from certificate level program through associate diploma, diploma to bachelor degree level.

On 1 July 2012, the medical radiation practice profession joined the National Registration and Accreditation Scheme (National Scheme) under the Health Practitioner Regulation National Law, as in force in each state and territory (National Law).

The Medical Radiation Practice Board of Australia (National Board) established the Medical Radiation Practice Accreditation Committee (Accreditation Committee) under the National Law. The Accreditation Committee is responsible for developing accreditation standards against which education providers, and their medical radiation practice programs, are assessed for accreditation under the National Law.

The Accreditation standards: medical radiation practice align with the threshold standards from the Higher Education Standards Framework (Threshold Standards) 2011 (Threshold HES). The Accreditation Committee recognises the role of the Higher Education Standards Panel¹ and the Tertiary Education Quality and Standards Agency (TEQSA) in regulation and quality assurance of higher education in Australia. Rather than duplicating that role, the accreditation standards are used to assess education providers and the programs they deliver in the context of assuring quality outcomes of medical radiation practice programs of study. Information about the Higher Education Standards Panel, TEQSA and the Threshold HES is available at www.hestandards.gov.au and www.teqsa.gov.au.

The Accreditation Committee recognises the role of TEQSA, and this fosters consistency and efficiency. It enables education providers to submit evidence of assessment by, and registration with, TEQSA as part of their application to the Accreditation Committee for accreditation assessment.

Using this document

Use this *Medical radiation practice accreditation guidance material* (accreditation guidance material) as a reference document. It gives you advice on the evidence you need to show during your assessment or monitoring against the accreditation standards.

Using 'we' and 'you'

Throughout the document, 'we' refers to the Accreditation Committee and 'you' refers to the education provider, or to staff preparing an application for accreditation assessment or a monitoring submission. In some sections, we use the pronouns 'our' and 'your' respectively.

¹ The Higher Education Standards Panel is responsible for providing independent advice on making and varying the standards in the Higher Education Standards Framework to the to the Commonwealth Minister(s) responsible for tertiary education and research.

Feedback and review

We invite education providers, assessors and other stakeholders to give us feedback on this document. Email your comments and suggestions to Accreditation.Unit@ahpra.gov.au, using the subject 'Feedback on MRP guidance material.' The Accreditation Committee will review all your feedback, which will inform refinements to this accreditation guidance material.

The structure of this document

We have divided the accreditation guidance material into six sections to reflect the six overarching fields of the accreditation standards.

Under the title of each field is a summary that outlines areas covered by the standards in that field. In some fields this is followed by the heading 'Overall guidance', which gives an overview of the entire field.

The specific guidance for each standard is in a table like the one below.

This box contains the standard – for example, Standard 2.1 Education provider standing

This box contains the full text of the relevant standard

Guidance

This box contains guidance only and should not be interpreted as a standard.

The guidance explains what the education provider needs to do to show evidence of meeting the standard. It includes examples and suggestions of the type of evidence the Accreditation Committee generally expects to see for that standard. These examples are a guide only and should not be interpreted as mandatory requirements. We do not expect you to submit all items listed as examples. Choose the best or most suitable evidence to submit with your application.

You must submit any evidence in one of the three ways listed in Section F of the application form.

Example questions

This box contains examples of the type of questions that may come up during assessment and monitoring, and indicate some key issues for each standard. If you have provided evidence that answers the question, then the assessment team may not ask the question. The assessment team:

- may not ask the question in the exact way it is worded in the accreditation guidance material
- is able to ask other questions to evaluate whether you meet the standard, and
- may address their question to all relevant stakeholders, including all levels of academic staff, general staff, students and clinical supervisors.

Other sources of quidance

This box is included for some accreditation standards. It lists publications and links to documents that may contain background information relevant to meeting the standard.

Version 2.0

Version 2.0 incorporates changes, including additional guidance, in response to informal feedback from Assessment Teams and trends in the types of information Assessment Teams requested from education providers during accreditation assessments conducted in 2014.

Version 3.0

Version 3.0 incorporates guidance about interpreting the term "rural and regional settings" on pages 17 and 23.

Additional guidance - completing the application form

If the program has pass and honours streams clearly differentiate the differences between the pass and honours programs.

When a standard has more than one part, clearly identify and address each part of the standard

Templates

We have provided optional templates to help you set out information and show evidence in your application. Use of the templates is optional. You may choose to set out information or show your evidence in a different format.

List of templates

Template 2.8	Details of clinical education and placement facilities			
Template 4.1.5	De-identified matrix of students' clinical education and placements			
Template 4.1.1A	How the program meets the AQF requirements at level 7			
Template 4.1.1B	How the program meets the AQF requirements at level 8			
Template 4.1.1C	How the program meets the AQF requirements at level 9			
Template 6.1	Learning outcomes and assessment – Professional and ethical conduct			
Template 6.2	Learning outcomes and assessment – Communication and collaboration			
Template 6.3	Learning outcomes and assessment – Evidence based practice and professional learning			
Template 6.4	Learning outcomes and assessment – Radiation safety and risk management			
Template 6.5	Learning outcomes and assessment – Practice in medical radiation sciences			
Template 6.6	Learning outcomes and assessment – Practice in diagnostic radiography			
Template 6.7	Learning outcomes and assessment – Practice in nuclear medicine			
Template 6.8	Learning outcomes and assessment – Practice in radiation therapy			
Template 6A	Learning outcomes and assessment – not listed in other Field 6 Templates.			

Field 1: Education provider registration and course accreditation

Summary

This field contains standards about your registration as a higher education provider with TEQSA and course accreditation against the *Provider course accreditation standards* in the Threshold HES.

Overall guidance

We want you to provide evidence that shows:

- you are registered as a higher education provider with TEQSA, and
- the program of study meets the Provider course accreditation standards in the Threshold HES.

Standard 1.1 Education provider registration

The education provider is registered as a higher education provider with TEQSA.

Guidance

You are required to show evidence that you are registered as a higher education provider with TEQSA. This may include a link to the National Register that TEQSA has published.

Identify whether TESQA has assessed you as an education provider against the *Provider registration* standards since January 2012.

Standard 1.2 Course accreditation

The program has been accredited against the criteria listed in the *Provider course accreditation standards* in the threshold HES.

Guidance

We want to be sure that the program of study meets the *Provider course accreditation standards* in the Threshold HES.

If you do not have self-accrediting authority, we want you to:

- submit evidence of TEQSA's assessment against the Provider course accreditation standards and
 evidence that the course is accredited by TEQSA. This may include a link to the National Register
 that TEQSA has published, or
- identify when TEQSA is due to assess the program against the *Provider course accreditation* standards.

If you have self-accrediting authority, you must provide evidence of your internal systems that make sure the program meets the *Provider course accreditation standards* in the Threshold HES.

We want to see evidence that the program was approved and endorsed by the applicable board

Examples of documents you may identify as containing this evidence:

- minutes of academic board or equivalent that show the program meets the Provider course accreditation standards and the paper that was submitted to that body
- meeting minutes of the Academic Board showing the program was approved/endorsed
- description of your education institution's quality assurance mechanisms this may be a series of internal checks and sign off on a course proposal with the *Provider course accreditation* standards, and
- policy and procedure(s) that your education programs must comply with in order to get internal approval.

Other	sources	of o	auid	ance
-------	---------	------	------	------

Application forms and guides at www.teqsa.gov.au

Field 2: Governance, management and resourcing standards

Summary

This field contains standards about your governance, how you manage the program of study you are offering, and the resources available to your academic, general and clinical education staff, as well as to students enrolled in the program.

Overall guidance

The standards in this field align with the provider registration standards in the Threshold HES **but do not simply reproduce them**. Instead, the accreditation standards apply the Threshold HES (which cover all the operations of an education provider) to the context of the medical radiation practice program and the providers offering that program.

The alignment aims to reduce the regulatory burden on education providers by enabling providers to submit evidence that has been provided to TEQSA, or will be provided to TEQSA, if it supports the explanation about how you meet a particular standard within this field.

Standards 2.6, 2.7 and 2.8 contain standards additional to the requirements of the Threshold HES.

Standard 2.1 Education provider standing

The education provider is reputable and accountable for the medical radiation practice program, consistent with the requirements for registration as a higher education provider with TEQSA.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

We expect to see evidence:

- · of your standing within the professional community and the health sector
- of your governance and management at the level of delivery of the medical radiation practice program, including confirmation that your leadership and senior management are located in Australia
- that the medical radiation program sits within the area (e.g. faculty) of the education provider that delivers a range of programs educating health professionals, and
- that education is your principal purpose in relation to delivering the program. An example of a document you may identify in your application as containing this evidence is:
- the vision, mission, goals, values, strategic plan and/or annual report of the faculty or division that delivers your medical radiation practice program. (You may choose to provide links from your website to the location of evidence in these documents instead of submitting the full document.)

Tell us about any arrangements you have in place with other entities for delivering all or part of the medical radiation practice program. An example of evidence you may choose to submit to show this type of arrangement is:

 a copy of a contract or agreement with a third party, agent and/or partner outlining details about the provision of any higher education services on your behalf, relating to delivery of the medical radiation practice program.

We expect you to provide information about the recent history of the medical radiation practice program (that is, over the last five years), including a summary of applicable regulatory and accreditation recognition. We also want to know if any regulator has placed any conditions or sanctions on your

registration/approval or on any third parties with whom you have an agreement to deliver all or part of your medical radiation practice program.

Example questions

During the site visit, the assessment team may ask you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do you engage with the broader medical radiation practice professional community and the health sector?
- 2. Do you think your program is well-regarded by the broader medical radiation practice professional community and the health sector? If so, what makes you think it is? If not, what could be done to address this issue?
- 3. How do you monitor arrangements for delivery of all or part of the medical radiation practice program by third parties? Is this monitoring effective? If not, what could you do to improve this?

Other sources of guidance

Application forms and guides at www.tegsa.gov.au

Standard 2.2 Financial viability and sustainability

The education provider has the financial resources and financial management capacity to sustain delivery of its medical radiation practice program, consistent with the requirements for registration as a higher education provider with TEQSA.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

We want to see evidence that the medical radiation practice program is financially viable and that you have the financial capacity to sustain quality in the medical radiation practice program.

We want to see evidence of financial support for the program and of contingency plans if projected student enrolment numbers are not reached.

Examples of documents you may choose to submit with your application and identify as containing this evidence:

- your business plan (staffing, projected staffing) including aspects relevant to delivery of the medical radiation practice program,
- projected income and expenditure statements and balance sheet for at least three (and up to five) years,
- · budget papers,
- projections against staffing costs, and/or
- risk management plans.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members might ask:

- 1. How do you monitor student demand?
- 2. Tell us about any recent changes to your financial position and how you have sought to address them

in your business plan.

3. What actions would you take if you had to stop offering the program to students before they graduate?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Standard 2.3 Corporate and academic governance

The education provider shows sound corporate and academic governance in delivering its medical radiation practice program, consistent with the requirements for registration as a higher education provider with TEQSA.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

You must explain how the medical radiation practice program fits into the broader strategic direction of the faculty and provide evidence to support your explanation. You may wish to refer to relevant sections of key organisational documents such as your school or faculty strategic plan.

You must explain how the external advisory committee (or similar external consultation) is incorporated into the program.

We want to see evidence of the most recent committee meetings of the committee responsible for the design and development of the program. Examples of documents you may choose to submit with your application include agenda and minutes of that committee. You must provide evidence that the arrangements for your faculty (or equivalent) ensure:

- (a) clear corporate governance including:
 - a properly constituted academic board
 - discernible separation between corporate and academic governance, and
 - a program advisory committee for the medical radiation practice program, and
- (b) mechanisms that allow issues to be escalated from the program delivery level to the governance level, and that allow governance issues to inform the program design and delivery.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- Explain the relationship between the medical radiation practice program and other programs that you
 offer
- 2. What types of program delivery issues do you need to take to Faculty Board (or equivalent) and how do you get feedback from Faculty Board about these issues?
- 3. Explain how governance issues are used to inform the program design and delivery.
- 4. Describe how you would take an issue that arises at program delivery level to your Academic Board or Faculty Board.

Other sources of guidance

Application forms and guides at www.tegsa.gov.au

Standard 2.4 Primacy of academic quality and integrity

The education provider maintains academic quality and integrity in delivering its medical radiation practice program, consistent with the requirements for registration as a higher education provider with TEQSA.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard. In your application you must explain how your governance arrangements protect the academic integrity and quality of the medical radiation practice operations, with evidence to support your explanation. The evidence you provide must show that you ensure:

- (a) the effective development, implementation and review of policies for all aspects of the medical radiation practice academic activities, including delivery of the medical radiation practice programs of study by other entities
- (b) the maintenance of academic standards, with appropriate mechanisms for external input, in accordance with relevant international conventions for good academic practice, and
- (c) effective quality assurance arrangements for the medical radiation practice program operations, including systematic monitoring, review and improvement.

You must have policies and measures in place that:

- protect the integrity of student assessment, and
- prevent, detect and address academic misconduct by students or staff, including cheating and plagiarism.

We want to see evidence that all elements of the program meet suitable codes of conduct, safety, any applicable ethics clearance requirements, and are consistent with legislative or other regulatory requirements and applicable national guidelines. For example, requirements for students before they start clinical placements; ethics clearance for research projects, etc.

We want to see evidence that demonstrates how visiting staff members and/or guest lecturers and clinical supervisors are included in the quality assurance systems.

An example of the type of documents you may choose to submit with your application and identify as containing this evidence are outcomes of student feedback surveys (or similar) for the program.

We will want to see evidence of how you respond, or plan to respond, to the outcomes of student feedback surveys (or similar) for the program.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do you deal with student cheating and/or plagiarism?
- 2. What arrangements do you have for ethics clearance and when is it required?
- 3. Do you require students to complete police checks or working with children checks before clinical placements?
- 4. What role does the Academic Board or Faculty Board have in confirming student results and student progression?
- 5. What quality assurance arrangements do you have for the medical radiation practice program?

Other sources of guidance

Application forms and guides at www.tegsa.gov.au

National Health and Medical Research Council codes and guidelines, for example National statement on

ethical conduct in human research, Australian code for the responsible conduct of research, Guidelines under section 95 of the Privacy Act 1988, www.nhmrc.gov.au

Standard 2.5 Management and human resources

The education provider's operations are well-managed and human resources are appropriate for delivering its medical radiation practice program and are consistent with the requirements for registration as a higher education provider with TEQSA.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

In your application, you must explain how the personnel are suitably qualified to manage and provide academic leadership of the medical radiation practice program. Outline the staff positions and show how those positions allow the objectives of the medical radiation practice program to be achieved. Additionally, provide evidence that those positions are filled by suitably qualified and experienced personnel. You must also show that there is access to other human resources required to allow you to achieve the expected medical radiation practice student learning outcomes and other objectives of the medical radiation practice program.

We will want to see evidence that shows the workload of each staff member who teaches in the program (including casual and sessional staff).

Examples of the evidence that you may choose to submit to outline the staff positions and show that those positions are filled by suitably qualified and experienced personnel:

- a list of all staff positions identifying the level of appointment (A E), fraction of appointment (0.1 to 1.0 EFT) and type of appointment (sessional or permanent), and
- a profile for each staff member identifying their position, teaching responsibilities, qualifications and experience relevant to their teaching responsibilities.

We will want to see information that shows the professional development undertaken by the program staff in the last twelve months.

We want to see that you manage human resources effectively in the medical radiation practice program to ensure:

- workload management
- performance review, and
- professional development of personnel.

Examples of evidence that you may choose to submit to show how you manage human resources:

- a description of the workload model and how it is applied
- · extracts of relevant policies and procedures, and
- a list of professional development completed by staff members in the past 12 months.

Some of the information you provide for standard 2.5 may be relevant to showing how you meet standard 4.4.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond

to questions about this standard. Examples of the type of questions team members may ask:

- 1. Do you use staff on conjoint appointments? If so, explain the arrangements for these positions using some examples.
- 2. Do you have staff performance reviews each year? How do you undertake these?
- 3. Do you use peer observation as part of staff development? If so, do you include comments on performance review?
- 4. Do you use visiting lecturers or tutors? If so, how do you include them in your quality-assurance systems?
- 5. Do you have any policies about the sizes of your classes?

Other sources of guidance

Application forms and guides at www.tegsa.gov.au

Standard 2.6 Responsibilities to students

The education provider documents and meets its responsibilities to medical radiation practice students, consistent with the requirements for registration as a higher education provider with TEQSA, including by:

- 2.6.1 providing students with information, support and equitable treatment
- 2.6.2 informing all medical radiation practice students prior to enrolment and during their studies, of the:
 - education provider's obligation to provide information requested by the Medical Radiation Practice Board of Australia about students and the mandatory notification requirements under the Health Practitioner Regulation National Law as in force in each state and territory
 - (b) practitioners' requirement to register with the Medical Radiation Practice Board of Australia in order to use professional titles
 - (c) Medical Radiation Board of Australia's requirements for registration to practise as a medical radiation practitioner in Australia, including any period of postgraduate supervised practice required by the Medical Radiation Practice Board of Australia, and
 - (d) medical radiation program's accreditation and approval status under the Health Practitioner Regulation National Law as in force in each state and territory
- 2.6.3 informing students about the risks associated with medical radiation practice, and
- 2.6.4 ensuring students develop skills they can employ to ensure their safety and ensuring students are adequately prepared for clinical education.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

In your application, you must explain how and provide evidence that you inform prospective and enrolled medical radiation practice students about the issues listed in standard 2.6.2.

Examples of evidence you may choose to submit to show that you inform prospective and enrolled medical radiation practice students about the issues listed in standard 2.6.2:

 links to, or copies of, the information you provide to students on enrolment, on your website or in a program guide.

We want to see that all prospective and enrolled students have access to current, accurate, adequate, and openly accessible information about:

(a) you, the education provider, and your TEQSA registration status

- (b) the TEQSA accreditation status of the medical radiation practice program
- (c) the AQF qualification type awarded to graduates of the medical radiation practice program
- (d) admission criteria for the medical radiation practice program
- (e) any arrangements for recognition of prior learning, credit for prior studies or arrangements for articulation with other programs
- (f) structure, credit points and duration or volume of learning of the medical radiation practice program
- (g) when (period) and where (location) the medical radiation practice program is offered, including the units that will be offered in each teaching period
- (h) any period of clinical placements and where they fit into the program
- (i) content and assessment for each unit in the medical radiation practice program, and
- (j) availability of, and access to, student support.

In relation to student support, we expect to see evidence of how you:

- (a) identify students at risk of not progressing and give them support, such as academic advisory services
- (b) provide students with information about, and access to, effective grievance processes to enable them to make complaints about any aspects of your operations without fear of reprisal
- (c) identify and respond to students' varying learning needs, which may include evidence of orientation programs and transition support, and ongoing academic language and learning support
- (d) provide information about, and access to academic advocacy and personal support services, which are independent, freely available, and allow students to appeal academic decisions such as enrolment termination, or disputed academic results
- (e) give students access to personal support services such as counselling, health, welfare, accommodation and career services, provided by appropriately qualified personnel
- (f) promote an inclusive and safe culture for students, including evidence that you provide effective security arrangements at all locations on campus and at program-related off campus locations, and
- (g) allow student representation to inform decision-making processes related to the medical radiation practice program. Examples of evidence you may choose to submit to show this student representation: links to, or copies of, the minutes of course advisory committee meetings identifying student representation and highlighting decisions in which student representation was included.

Some of the information you provide for standard 2.6 may be relevant to showing how you meet standards 4.2, 4.3 and 4.4.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do students find out about the availability of, and access to, student support?
- 2. How are registration statutes/policies/codes of conduct etc. integrated into the program: for example where in the curriculum are students taught about requirements for notifications, English language requirements etc.?
- 3. How does your organisation either at a faculty, school, division or department level make sure that students who enter the program are aware of the requirements of registration etc.?
- 4. What is the university/faculty action plan if the following occur in relation to prospective or enrolled students:
 - a. impairment or health issue arising

- b. unsatisfactory academic performance
- c. criminal charges and/or conviction
- d. clinical skills below the standard expected, and
- e. issues are identified during the police check or working with children check prior to clinical placements?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Standard 2.7 Physical and electronic resources and infrastructure

The education provider ensures there is sufficient infrastructure and safe, well-maintained physical and electronic resources, to enable the achievement of the medical radiation practice program objectives, across all its relevant locations, consistent with the requirements for registration as a higher education provider with TEQSA, including by:

- 2.7.1 providing the teaching and learning equipment and tools to allow for the development of a range of clinical skills aligned to the medical radiation practice program's learning outcomes, including simulation equipment relevant to the respective division of clinical practice, and
- 2.7.2 ensuring medical radiation practice students have exposure to contemporary technologies and equipment relevant to clinical practice.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

The infrastructure and resources covered by the standard include classrooms, teaching spaces, library, electronic learning resources, simulated learning environments, laboratories and clinical education facilities (Standard 2.8 contains more detail about what is required for clinical education) and also students' access to contact people, whether students are enrolled off-site or on-site.

We expect you to explain and provide evidence about the processes that you have in place to make sure you maintain the adequacy and security of facilities and resources.

We expect you to describe how, and provide evidence that, sufficient resources are accessible to students. Examples of evidence you may choose to submit to show how you meet standard 2.7.1::

- the medical radiation practice program timetable, indicating facility bookings and class size, and
- a register listing all equipment used for teaching and learning (including simulated learning environments) in the medical radiation practice program, including an indication of the age of the equipment and whether it meets current safety standards.

Some of the information you provide for standard 2.7 may be relevant to showing how you meet standards 2.8 and 4.2.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. What equipment do your students have access to on-campus?
- 2. Can students gain access to information technology and library resources off-campus and during weekends/public holidays?
- 3. How many students are in classes that use equipment on-campus and can the students access the equipment outside of class time?

- 4. How do you make sure your equipment stays up to date?
- 5. How do you make sure students are exposed to contemporary technologies and equipment relevant to clinical practice?
- 6. How do you monitor student attendance at practical classes? What do you do if students do not attend practical classes in the pre-clinical placement periods?

To students:

- Can you access information technology and library resources when you are off-campus or on weekends/public holidays?
- 2. How large are the practical classes you attend? Do you always get a chance to use the equipment during practical classes?

Other sources of quidance

Application forms and guides at www.teqsa.gov.au

Standard 2.8 Clinical education

The education provider has effective arrangements to assure the quality of student clinical placements in the medical radiation practice program, including by:

- 2.8.1 assuring the quality of all clinical education and placement facilities
- 2.8.2 using documented criteria for selecting appropriate clinical education and placement facilities for the medical radiation practice program, including a criterion that requires each facility to meet all the applicable regulatory requirements
- 2.8.3 ensuring clinical education facilities are appropriately licensed
- 2.8.4 ensuring that, when external clinical education and placement facilities are used, a formal agreement is in place with the facility or relevant external agency
- 2.8.5 having a risk management process in place that includes strategies to deal with potential workplace incidents in clinical education and placement facilities for the medical radiation practice program
- 2.8.6 having a process in place that requires students to disclose to the education provider issues that may affect their ability to safely engage in clinical education and placements
- 2.8.7 having appropriate processes in place to ensure students are safe to engage in clinical practice prior to clinical placements, including confidential disclosure of issues by students, completion of police checks and, where appropriate, working with children checks
- 2.8.8 having appropriate insurance that indemnifies all academic and clinical staff, students and clinical supervisors when undertaking activities related to the medical radiation practice program, including when undertaking activities off-shore
- 2.8.9 ensuring the volume, range and level of clinical education and placements is adequate for effective delivery of the medical radiation practice program's learning outcomes
- 2.8.10 ensuring clinical supervisors for the medical radiation practice program have had a period of relevant clinical and supervision experience and are registered in the relevant division of medical radiation practice by the Medical Radiation Practice Board of Australia.
- 2.8.11 providing clinical supervisors and students in the medical radiation practice program with detailed information on their roles and responsibilities
- 2.8.12 ensuring the ratio of clinical staff to students is adequate for effectively achieving the medical radiation practice program's learning outcomes
- 2.8.13 ensuring there is ongoing evaluation of clinical education facilities used, and clinical supervisors engaged in, the medical radiation practice program
- 2.8.14 ensuring each medical radiation practice student's clinical education and placements include:

- (a) experience providing culturally competent health care, and
- (b) exposure to a range of clinical settings including rural and regional settings
- 2.8.15 ensuring clinical education and placements provide medical radiation practice students with regular opportunities to reflect on their observations of practice, and
- 2.8.16 ensuring there are sufficient clinical placements available for all students in the program of study to demonstrate achievement of the program's learning outcomes.

Guidance

In your application you must show us how you ensure the quality of clinical placements. Provide evidence that the clinical placement arrangements lead to all students achieving the desired learning outcomes. We must see that clinical placements are safe for patients, students and staff, with suitable risk management plans and indemnity insurance in place.

In part 2.8.14(b) "exposure to ... rural and regional settings" means clinical education and placements that provide learning experiences relevant to health services in any community outside a major city. Rural and regional can be interpreted as if worded rural and/or regional.

Exposure to rural and regional settings in the context of clinical education and placements are learning experiences that provide students with opportunities to understand the impact of social context and physical location on access to, and delivery of, health services outside major cities. Exposure to clinical settings outside major cities allows students to gain insights to community-based practice and, if the exposure includes a clinical placement, students may have an opportunity to develop additional knowledge and skills.

This standard addresses the quality of activities used for clinical education and clinical placements. This includes facilities used for clinical placements on campus and placements in an external clinic in Australia or overseas. We expect you to provide an explanation, and supporting evidence, about:

- how the range of placements, of patients that students consult with and of conditions that students are exposed to lead to achievement of the learning outcomes
- how you inform students and supervisors of their respective roles and responsibilities when undertaking clinical education and clinical placement
- how you arrange police checks and, where fitting, working with children checks before clinical placements
- ongoing evaluation of the clinical supervision, on campus and externally; this may include showing how evaluation is made and how the results of evaluation are used to improve the quality of supervision. (You may wish to cross-reference the evidence you provide for standard 4.6.1.)
- how you make sure each student experiences the provision of culturally competent health care during clinical education and placements
- how the ratio of clinical staff to students makes sure that students achieve learning outcomes, and
- your risk management plan, including strategies for responding to incidents that may occur at a clinical placement on campus or at an external clinic
- training provided to clinical supervisors
- how you perform ongoing evaluation of clinical education facilities and supervisors, other than through gathering student feedback

We will want to see evidence:

- that shows the process you use to evaluate whether the program's learning outcomes are
 effectively delivered at clinical placement sites (for example, clinical supervisors' assessments of
 students and the guidelines that you give clinical supervisors about how to complete the
 assessments).
- that shows how you provide students and clinical supervisors with detailed information on their roles and responsibilities
- of documented criteria for selecting appropriate clinical education and placement facilities;

including a criterion that requires each facility to meet all applicable regulatory requirements

• of formal partnerships with clinical placement sites such as copies of signed formal partnership agreements with clinical placement sites and/or an update on obtaining these

Examples of evidence you may choose to submit to show how you meet standards 2.8.1, 2.8.2, 2.8.4 and 2.8.13:

- any criteria used to assess whether an external facility is suitable for clinical placements
- · any criteria in relation to external clinical supervisors
- formal arrangements in place with any external agencies that provide facilities for clinical placements
- student feedback on clinical education and external clinical placements which addresses the quantity and quality of clinical education, placements and supervisors, and
- information you give students and staff about clinical education and placements.

We attach template 2.8 to help you set out details about each clinical placement site, indicating the number of students, what types of clinical situations the students will experience and the corresponding program learning outcomes. Use of the template is optional and you may provide this information in a different format.

You may wish to cross-reference the information you provide for standards 2.7 if it is relevant to showing how you meet this standard. Some of the evidence you provide for standard 2.8 may be relevant to showing how you meet standards 4.4 and 4.6.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Tell us how you devised the criteria that you use to select clinical placement sites.
- 2. Have you had recent experiences with clinical placement sites becoming unable to take students? What did/would you do in such a situation?
- 3. What processes did you engage in to create the formal agreement you have with placement providers?
- 4. What factors did you consider when creating the formal agreement you have with placement providers?
- 5. If there was a radiation spill or overdose incident how would you expect your students and staff to respond?
- 6. How much actual clinical experience do your students get on a day-to-day basis?
- 7. How do you make sure your students can communicate effectively with indigenous and ethnic minority Australians?
- 8. How does your clinical program manage the need to turn students into reflective practitioners?
- 9. How are clinical placement supervisors engaged in and informed of the program objectives?
- 10. Besides completing working with children checks and police checks, what other preparatory processes do you require your students to complete before the start of clinical rotation and why?
- 11. What is your approach to developing clinical skills? How does any of the learning materials (for example clinical studies' workbooks/portfolios) you use in your clinical education program reflect this approach?
- 12. If a student runs into difficulty as a result of personal issues during their clinical rotation, what process do you have in place to support them and ensure the safety of patients?
- 13. What support and education do you offer clinical instructors or preceptors to make sure they evaluate and support students in a fair and consistent manner?
- 14. If you found at the start of the academic year that you did not have enough clinical placements for all your enrolled students what would you do?
- 15. What mechanisms are in place to monitor the conduct of the clinical program and the quality of supervision?
- 16. How often do university staff undertake visits to clinical centres where students are placed? At what time in each placement do these visits occur?

For nuclear medicine programs:

17. How do you assure yourself that the clinical placement sites use suitable quality assurance mechanisms and hold necessary licences?

Other sources of guidance

For resources related to clinical supervision, clinical placement assessment tools and models of supervision:

Health Workforce Australia Clinical Supervision Support Program, www.hwa.gov.au/work-programs/clinical-training-reform/clinical-supervision-support-program

Siggins Miller Consultants, 2012, *Promoting Quality in Clinical Placements: Literature review and national stakeholder consultation*, Health Workforce Australia, Adelaide

Health Workforce Australia, National guidelines for clinical placement agreements, www.hwa.gov.au/sites/uploads/HWA_National-guidelines-for-clinical-placement-agreements.pdf

For resources about radiation safety and licensing:

Australian Radiation Protection and Nuclear Safety Agency, www.arpansa.gov.au/

For resources about culturally competent health care:

Centre for Culture, Ethnicity and Health, ceh.org.au/culturalcompetence

Health Workforce Australia, Aboriginal and Torres Strait Islander health curriculum framework, www.hwa.gov.au/work-programs/workforce-innovation-and-reform/atsihw/health-curriculum-framework

Queensland Health, Five Cross Cultural Capabilities for clinical staff, www.health.qld.gov.au/multicultural/health_workers/train-evaluate.asp

Field 3: Education provider attributes

Summary

The standards in this field align with the higher education provider category requirements in the Threshold HES **but do not simply reproduce them**. Instead, the accreditation standards apply the Threshold HES (which cover all the operations of an education provider) to the context of the medical radiation practice program and the providers offering that program.

The alignment aims to reduce the regulatory burden on education providers by enabling you to submit evidence that you have already to TEQSA, or will provide to TEQSA, if it supports the explanation about how you meet a particular standard.

Standard 3.1 contain standards additional to the requirements of the Threshold HES.

Standard 3.1 Education provider standards

The education provider delivers teaching and learning that engage with advanced knowledge and inquiry, consistent with the higher education provider category requirements in the threshold HES including by:

- 3.1.1 actively establishing and maintaining partnerships with relevant organisations in the health sector, aimed at enhancing the education, including clinical education, of medical radiation practice students, and
- 3.1.2 actively seeking stakeholder participation to maintain the currency and relevance of the medical radiation practice program of study to the health sector and the community.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

In your application, you must explain and provide evidence that shows your commitment to and support for free intellectual inquiry in academic endeavours relevant to the medical radiation practice program. We want to see evidence of:

- teaching and learning that engages with advanced knowledge and inquiry, and
- commitment of teachers, program designers and assessors to the systematic advancement and dissemination of knowledge.

Examples of evidence you may choose to submit to show commitment of teachers, program designers and assessors to the systematic advancement and dissemination of knowledge:

- · details of publications and presentations by staff
- details of research engagement by staff, and
- details of reference material that informs teaching.

You must explain and provide evidence that shows engagement with local communities and a commitment to social responsibility in your activities. You may wish to provide evidence such as:

- partnership agreements with relevant organisations or individuals, and
- results or outcomes from stakeholder consultation or participation in the program.

Stakeholders may include representatives of the medical radiation science profession.

Some of the information you provide for this standard may be relevant to showing how you meet standard 4.1.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do you make sure academic staff are active in scholarship that informs their teaching?
- 2. Tell us about any challenges you have encountered in establishing and maintaining partnerships with health sector organisations.
- 3. Medical radiation science technology is evolving rapidly. How important is it to ensure the program stays abreast with new technologies? Give an example of a new technology that your program covers and explain the steps you took to include this new technology.
- 4. How do you support staff development to engage with advanced knowledge and enquiry?
- 5. How do you make sure your curriculum remains relevant to practice?

For students:

1. Explain how the reference materials and topics you covered prepared you for clinical placements. Has there ever been a time when you didn't understand something on placement because you had not covered it in your course? If so, tell us about that experience.

Other sources of guidance

Application forms and guides at www.tegsa.gov.au

Field 4: Program attributes

Summary

The standards in this field align with the provider course accreditation standards in the Threshold HES but **do not simply reproduce them**. Instead, the accreditation standards apply the Threshold HES (which cover all the operations of an education provider) to the context of the medical radiation practice program and the providers offering that program.

The alignment aims to reduce the regulatory burden on education providers by enabling providers to submit evidence that has been provided to TEQSA, or will be provided to TEQSA, if it supports the explanation about how you meet a particular standard.

Standards 4.1, 4.4, 4.5, and 4.6 contain standards additional to the requirements of the Threshold HES.

Standard 4.1 Program design

The education provider ensures its medical radiation practice program is designed to develop the knowledge, skills and professional capabilities required for graduates to be ready to engage in safe and effective practice of the medical radiation practice profession, consistent with the requirements for course accreditation specified in the threshold HES, including by:

- 4.1.1 designing the medical radiation practice program to meet the AQF requirements for a qualification at level 7 or higher²
- 4.1.2 ensuring input from relevant external stakeholders, including consumers, is taken into account in designing the medical radiation practice program
- 4.1.3 integrating theoretical knowledge and clinical practice of medical radiation practice throughout the program
- 4.1.4 defining and addressing learning outcomes that prepare graduates for entry to practice of the medical radiation practice profession in the Australian healthcare context
- 4.1.5 designing an integrated, structured clinical education and placement program that provides each student with:
 - (a) experiences (including patient contact, simulated learning and opportunities for interprofessional learning) across the scope of practice expected of entry level medical radiation practice practitioners, and
 - (b) exposure to a range of clinical settings including rural and regional settings where they are available.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

You need to document and explain how the program meets (or will meet) the AQF requirements for a qualification at Level 7 or higher. We attach templates 4.1.1 A, B and C (for AQF levels 7, 8 and 9 respectively) to help you show this evidence. Use of the template is optional and you may choose to show evidence in the format you use for your internal approval.

You must describe your internal program development process and show evidence of how you implement that process when developing the medical radiation practice program. Identify what committees or groups

-

² See www.aqf.edu.au

(such as advisory committees or course development committees) you involve in the process. List the members and their relevant background and/or role on the committee or group and submit evidence of their involvement in the program design.

Examples of evidence you may choose to submit to show how you meet standard 4.1.2:

• records of meetings of the committees or groups, with sections relevant to the design and development of the program highlighted.

We want to see how you make sure that the processes for design and approval of the medical radiation practice program give a realistic projection of the demand for the program and the resources required for its delivery. Include in your application projected student numbers for a full cycle of delivery for the program of study for which you are seeking accreditation. For example, for a four-year bachelor degree, you must provide projected student numbers in each year of the program at least for the next four years; explain the rationale for these projections. Documents you may submit to show the rationale for the projections may include your business plan, with relevant section(s) highlighted.

Explain how the program content takes external standards (including radiation safety and infection control standards) into account, and show evidence that program content is drawn from, and relates to, the established, coherent and current body of medical radiation practice knowledge, clinical practice and research/scholarship.

Examples of evidence you may choose to submit to show that program content is drawn from, and relates to, the established, coherent and current body of medical radiation practice knowledge, clinical practice and research/scholarship:

 course materials highlighting content relevant to external standards and to the established, coherent and current body of medical radiation practice knowledge, clinical practice and research/scholarship.

To address 4.1.3, give an overview of the sequence of content for each year of the program. Highlight specific parts of your program to show that theory and practice are integrated in the design of your program. Also explain the rationale for the sequencing within and between each year of the program.

In part 4.1.5 "rural and regional settings" means health services in any community outside a major city. Rural and regional can be interpreted as if worded rural and/or regional.

Learning outcomes

Make sure you list learning outcomes for all units in the evidence you submit for field 6. Include learning outcomes that do not map to the *Professional capabilities for medical radiation practice* developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

You must map the learning outcomes for the program against the:

- units/subjects, and
- expected capabilities of a medical radiation practitioner at entry to practice.

Show that students who complete the program attain key graduate attributes, including appropriate suitable level of English language proficiency. Show how you ensure:

- students who require English language support are promptly identified, and
- suitable development of students' English language proficiency through the program.

You could include a description of how English language is integrated with curriculum design, assessment practices and course delivery.

You must show us that the medical radiation practice program documentation:

- presents clearly the rationale, objectives, structure, delivery methods, assessment approaches and student workload requirements for the program
- identifies any compulsory requirements for completion of the program, and
- shows the medical radiation practice program is coherent, and is designed to provide appropriate engagement by students in intellectual inquiry.

You may wish to submit a detailed course guide with relevant sections highlighted as evidence.

You may wish to cross-reference the information you provide for Field 6 if it is relevant to showing how you meet standard 4.1.4. We attach templates for Field 6 to help you map the learning outcomes for each unit in the program. Use of the templates is optional and you may show your evidence in another format.

Learning pathways and articulation

We expect you to identify whether the medical radiation practice program has options for entry and exit pathways, including any opportunities for articulation into the program from other studies and from the program to further studies.

Examples of evidence you may choose to submit to show relevant pathways:

- application forms for students to seeking advanced standing on the basis of previous studies, and/or
- clearly stated pre-requisites in published program information.

Some of the information you provide for this standard may be relevant to showing how you meet standard 5.2.

Modes of study and third party arrangements

If there are different delivery sites and/or modes of study you must show evidence that the learning outcomes for each site and/or mode of study are equivalent. If there are differences across learning outcomes, explain the differences.

Provide information about the quality assurance arrangements that you use to make sure that learning outcomes from programs or units offered through arrangements with your third parties, agents and/or partners are equivalent to those achieved when the program is offered directly by you.

Examples of evidence you may choose to submit to show, where relevant, that the learning outcomes for each site and/or mode of study are equivalent:

- evaluation of staff and student feedback about aspects of the medical radiation practice program managed or delivered by any other entity, and
- comparative analyses of student results for the medical radiation practice program delivered by you and delivered by any other entity.

Simulated learning environments

Simulated learning environments in the context of clinical education allow students an experience that mimics 'real-life' patient/client interaction. This may differ from more traditional uses of simulation in medical radiation education focusing on the technical aspects of safe use of equipment. See more information in the 'Other sources' box below.

We expect you to explain how the clinical education and placement program (including any simulated learning environments) provide each student with the experiences and exposure required by standard 4.1.5; show evidence that supports your explanation.

Provide details of each student's clinical placements. We have provided template 4.1.5 to help you show this evidence – use of the template is optional and you may show your evidence in another format.

You may wish to cross-reference some of the information you provide for standard 3.1 if it is relevant to showing how you meet this standard.

You may wish to cross-reference the information you provide for Field 6 if it is relevant to showing how you meet standard 4.1.4.

Some of the information you provide for this standard may be relevant to showing how you meet standard 5.2.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do you engage external stakeholders, including consumers, in the design of your education program?
- 2. What educational strategies do you use that allow students to integrate their understanding across basic science, clinical, and disciplinary boundaries?
- 3. How do you know your students are ready for clinical placement and are work-ready at the end of the program?
- 4. To what extent have you designed simulation into your program? How do you go about designing this?
- 5. What areas of practice do you find it most difficult to cover in the course?
- 6. How does your organisation at a faculty, school, department or division level make sure that students who enter the program are aware of the requirements of registration etc.?
- 7. Does the university have a social media policy? If so, how are students made aware of the policy and its ramifications for clinical education?
- 8. What steps are in place to monitor student progression throughout the program in terms of the development of clinical skills and higher order learning skills?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Tertiary Education Quality and Standards Agency, *TEQSA* and the Australian Qualifications Framework – FAQ document, www.tegsa.gov.au/for-providers/frequently-asked-questions-providers

Tertiary Education Quality and Standards Agency *TEQSA Information Sheet: eLearning and compliance with the Threshold Standards*, http://teqsa.gov.au/sites/default/files/TEQSAeLearningInformationSheet.pdf

Australian Learning and Teaching Council, 2011, Resources to assist discipline communities to define threshold learning outcomes, www.olt.gov.au/resource-library?text=learning+outcomes

Adding Support Skills for European Teachers (ASSET) project webpage on learning outcomes, www.assetproject.info/learner_methodologies/before/overview.htm#outcome

Robyn Nash, Good practice report: Clinical Teaching, 2011, www.olt.gov.au/resource-library/good-practice-reports

Office of Learning and Teaching resources on Developing interprofessional learning and practice capabilities within the Australian health workforce, www.olt.gov.au/project-learning-teaching-health-uts-2007

Publications list at Australian Interprofessional Practice Network, www.aippen.net/publications

University of SA and Health Workforce Australia, Use of Simulated Learning Environments in Radiation Science Curricula Final Report, www.hwa.gov.au/sites/uploads/sles-in-radiation-science-curricula-201108.pdf

Health Workforce Australia, Simulated Learning Environments web page and resources, www.hwa.gov.au/work-programs/clinical-training-reform/simulated-learning-environments-sles

The Good Practice Principles for English Language Proficiency for International Students in Australian Universities, March 2009, http://pandora.nla.gov.au/pan/127066/20110826-0004/www.auqa.edu.au/files/otherpublications/good%20practice%20principles%20for%20english%20language%20proficiency%20report.pdf

Standard 4.2 Program resourcing and information

The education provider ensures information provided to students, levels of resourcing for its medical radiation practice program and access to resources by staff and students are adequate and enable students to achieve the program's expected learning outcomes and are consistent with the requirements for course accreditation specified in the threshold HES.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

We will want to see how you make sure all students have enough access to:

- electronic and/or physical library and information resources
- IT resources, and
- specialised teaching facilities such as laboratories and practice teaching facilities.

We expect you to show how you provide information to on-site and off-site students about:

- staff consultation times, and
- how to contact staff.

You may wish to cross-reference some of the information you provide for standard 2.6 and standard 2.7 if it is relevant to showing how you meet this standard.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Tell us how confident you are that you have enough funding for staffing and operational costs.
- 2. What relationship is there between funding level and student number, for local and international students?
- 3. Tell us about your class sizes and how you determine they are optimised.

For students:

- 1. Do you have access to the library/e-resources and lab facilities you need? How do you access them?
- 2. Are you able to access your teachers/tutors when you need to? How do you access them and how do you know of their availability?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Standard 4.3 Admission criteria

- 4.3.1 The education provider ensures the admission criteria for its medical radiation practice program are:
 - (a) appropriate for the respective AQF level and the expected learning outcomes for the program
 - (b) consistent with the requirements for course accreditation within the threshold HES.
- 4.3.2 The education provider ensures students enrolled in the medical radiation practice program are sufficiently competent in the English language to participate effectively in the program and achieve its expected learning outcomes, and sets English language entry requirements that reflect the English language skills registration standard established by the Medical Radiation Practice Board of Australia.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

We expect to see evidence that admission criteria for the medical radiation practice program:

- meet standards 4.3.1 and 4.3.2
- · take external benchmarks into account, and
- make sure students have enough prior knowledge and skills to successfully do the medical radiation practice program.

You may do this through evidence that shows:

- how you determine admission criteria for the medical radiation practice program
- external benchmarking against other education providers' admission criteria for entry to medical radiation practice studies
- how you make sure students have enough prior knowledge and skills to successfully undertake the medical radiation practice program
- your policy for English language for entry to the program
- how you determine English language requirements for prospective students
- how you make sure the English language requirements allow for enough language competence for students to participate effectively in the program and achieve expected learning outcomes, and
- institution-wide strategies you have implemented to address the needs of culturally and linguistically diverse (CALD) communities and Aboriginal and Torres Strait Islander students.

Show that:

- credit for previous studies or skills (including articulation, recognition of prior learning and credit arrangements) is provided for and consistent with the AQF
- credit arrangements preserve the integrity of the medical radiation practice program, and
- suitably qualified personnel under delegated authority make admissions decisions for medical radiation practice students.

Standard 5.2, *Qualification attributes – Articulation, recognition of prior learning and credit arrangements* contains further details about what the AQF requires in relation to credit arrangements.

You may wish to cross-reference some of the information you provide for standard 2.6 if it is relevant to showing how you meet this standard.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. What is the English language proficiency standard for entry into the program?
- 2. How do you make sure students have enough competency in English language to participate in the program?
- 3. What pre-requisite knowledge or qualifications do you expect of students entering the program?
- 4. How do you evaluate credit for previous studies, particularly for applicants to graduate entry programs?
- 5. How do you monitor institution-wide strategies that address diversity and equality?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Medical Radiation Practice Board of Australia English Language Skills Registration Standard, www.medicalradiationpracticeboard.gov.au/Registration-Standards.aspx

Standard 4.4 Teaching and learning

The education provider ensures the teaching and learning support for its medical radiation practice program is of high quality and consistent with the requirements for course accreditation specified in the threshold HES, including by:

- 4.4.1 appointing academic and research leadership staff at an associate professor level or higher to provide guidance to the medical radiation practice program and its staff
- 4.4.2 ensuring that staff who teach students in the medical radiation practice program have a sound understanding of current scholarship and/or professional practice in the division of medical radiation practice that they teach, and
- 4.4.3 employing mechanisms to ensure that the quality of the clinical supervision is attained and maintained in the medical radiation practice program.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

We want to see evidence that you have appointed academic and research leadership staff at an associate professor level or higher to guide the medical radiation practice program and its staff. While we expect that the person appointed is from within medical radiation practice, if such a person has not yet been appointed, you may identify someone from the broader area in which the medical radiation practice discipline is located, but who is not within the medical radiation practice discipline itself.

Explain in your application how the numbers, qualifications, experience, expertise and sessional/full-time mix of the academic staff who teach or tutor the medical radiation practice program, and support staff, are suitable to the:

- nature, level, and mode of delivery of the medical radiation practice program, and
- attainment of expected student learning outcomes.

Examples of evidence you may choose to submit to show how you meet standards 4.4.1 and 4.4.2:

- organisational structure showing the staff profile (name, qualifications and EFT)
- details of specialists from outside the school who deliver part of the course, and
- curriculum vitae for academic staff and contract and/or conjoint staff.

You must show that academic staff who teach students in the medical radiation practice program:

- are qualified in the medical radiation practice discipline to at least one AQF level higher than the program of study being taught; or have equivalent medical radiation practice professional experience
- have a sound understanding of current scholarship and/or professional practice in the division of medical radiation practice that they teach
- understand academic and/or adult learning principles relevant to the student group being taught
- engage students in intellectual inquiry suitable to the level of the medical radiation practice program and unit being taught, and
- have access to student and other feedback on the quality of their teaching and have opportunities to improve on their teaching.

We expect to see how you make sure the quality of clinical supervision is attained and maintained. You may give details of any support you give clinical supervisors e.g. formal training or other methods to make sure they can deliver that program.

You must provide evidence that shows how and when academic staff are available to students seeking assistance. Evidence may include academic staff timetables identifying when each staff member is available to students.

We want to see how and when you identify students at risk of not progressing academically, with evidence of the support you gave these students. Evidence may include de-identified case studies of students.

You may wish to cross-reference some of the information you provide for standards 2.5, 2.6 and 2.8 if it is relevant to showing how you meet this standard.

Some of the information you provide for this standard may be relevant to demonstrating how you meet standards 4.6.1 and 4.6.2.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How did you decide on the staffing profile you showed us in your documentation?
- 2. What scholarly activities in research, teaching and learning are your staff currently undertaking?
- 3. How do you use the feedback on the quality of teaching and learning that you receive in your student surveys?
- 4. What faculty development in research, teaching and learning is available to your academic staff?
- 5. What do you do to support clinical supervisors and make sure they are capable of delivering clinical placements?
- 6. How do you identify best practice in student teaching and learning? Show us evidence of how you implement the best practice you have identified.

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Standard 4.5 Assessment and expected learning outcomes

The education provider ensures assessment methods within the medical radiation practice program are effective and consistent with the requirements for course accreditation specified in the threshold HES, including by:

- 4.5.1 employing assessment tasks that measure achievement of the program's learning outcomes
- 4.5.2 employing a range of assessment methods in the medical radiation practice program, including cognitive and practical assessment tasks
- 4.5.3 employing an appropriate balance between formative and summative assessment in the medical radiation practice program
- 4.5.4 ensuring that graduates have attained key attributes including a level of English language proficiency that meets the Medical Radiation Practice English language skills registration standard established by the Medical Radiation Practice Board of Australia, and
- 4.5.5 monitoring and analysing assessment data to support and assure the continued reliability and validity of the assessment methods.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

In your application you must describe your assessment processes and procedures, including moderation procedures. Show evidence that the processes and procedures achieve consistent and suitable assessment. We want to see that assessment tasks enable opportunities for students to show achievement of expected learning outcomes.

It is important that you appoint suitably qualified staff to undertake assessment, and that feedback on assessment is provided to students. We want to see:

- · evidence that shows how you decide who assesses students
- examples of feedback you give students on their assessment, and
- details about timeframes for students to receive that feedback.

Examples of evidence you may choose to submit to show how you meet aspects of this standard:

- an assessment plan outlining the range of assessment tasks, identifying whether each task is formative or summative
- detailed mapping of learning outcomes for each unit/subject to assessment tasks, including detail of the assessment task
- de-identified examples of completed student assessments across the range of assessment tasks
- detailed examples of assessments tasks, including an explanation of how each task measures achievement of student learning outcomes
- feedback from staff that shows their satisfaction with the range of assessment tasks they are required to do, and their satisfaction with the feedback they are required to give students, including timeframes for it, and
- feedback from students that shows their satisfaction with the feedback you have given them on their assessment, and their satisfaction with the time it takes to receive that feedback.

You must describe the quality assurance processes you use to make sure your assessment methods are continually reliable and valid. You may do this through evidence that shows how you:

- monitor and analyse assessment data, and how you subsequently apply those quality assurance processes to the program
- · do benchmarking to make sure academic results achieved reflect students' level of performance

compared to students in similar programs – this may be internal or external to your institution, and share assessment items with other education providers to benchmark performance of students.

We want to see that you maintain, monitor and act on comparative data on the performance of the medical radiation practice students. This may include evidence that shows you have considered information on the performance of student groups by entry pathway, mode of study and place of study, including student attrition, student progress, program completions, and grade distributions.

Show how you make sure that graduates have attained a level of English language proficiency consistent with the Medical Radiation Practice Board of Australia requirements for registration as a medical radiation practitioner.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- Tell us how you approach the assessment of higher order thinking (cognitive) skills at the
 corresponding AQF level. (For programs at AQF level 7, these skills need to be assessed as welldeveloped; at AQF level 8, these skills need to be assessed as advanced and at AQF level 9 these
 skills need to be assessed as expert.)
- 2. How do you make sure your students are safe practitioners?
- 3. How do you monitor the quality of your assessment strategies?
- 4. What faculty development in assessment is available to your academic staff?
- 5. What do you do when you find that a particular assessment is not working well? Give us a recent example of this happening.
- 6. Do students get formative assessment in every mode of assessment you use? What challenges do you encounter in providing formative assessment?
- 7. Explain how you make sure your students achieve the required level of proficiency in English? (if not provided in application documentation).

Other sources of guidance

Application forms and guides at www.tegsa.gov.au

Medical Radiation Practice Board of Australia English Language Skills Registration Standard, www.medicalradiationpracticeboard.gov.au/Registration-Standards.aspx

Sue McAllister, Michelle Lincoln et al, 2011, Establishing infrastructure and collaborative processes for cross-institutional benchmarking of student clinical performance in speech pathology, www.olt.gov.au. See also http://benchmarking.portal.com.au/

Office of Learning and Teaching Resource Library, www.olt.gov.au

Assessment resources at www.cshe.unimelb.edu.au/resources_teach/assessment/ including the Assessing Learning project at www.cshe.unimelb.edu.au/resources_teach/assessment/ including the Assessing Learning project at www.cshe.unimelb.edu.au/resources_teach/assessment/ including the Assessing Learning project at www.cshe.unimelb.edu.au/assessinglearning/index.html

Standard 4.6 Program monitoring, review, updating and termination

The education provider ensures its medical radiation program is regularly monitored, reviewed and updated to ensure compliance with the accreditation standards and that program change including termination will be appropriately managed, consistent with the requirements for course accreditation specified in the threshold HES, including by:

- 4.6.1 undertaking regular review of clinical education and placements in the medical radiation practice program including evaluating the students' experiences whilst on placements and considering feedback from clinical supervisors and staff employed at clinical facilities
- 4.6.2 ensuring there is ongoing evaluation of the quality of clinical supervision and of placement facilities for the medical radiation practice program, and
- 4.6.3 having mechanisms in place to support accurate and timely completion and submission of monitoring reports to the Accreditation Committee.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard - the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

We want to see how you undertake monitoring, review and updating of the medical radiation practice program. Explain and show how monitoring and review leads to change in the program, including identifying the cycle for program review. We want to see that you compare performance on teaching, student learning outcomes and graduate outcomes for the medical radiation practice program with other education providers, and use regular, valid and reliable feedback from internal and external stakeholders to improve the operations relevant to the medical radiation practice program.

Examples of evidence you may choose to submit to show how you meet aspects of this standard:

- student feedback that has been considered by relevant program review committee or relevant persons performing program review
- · comparative data with other programs you offer
- evidence of change(s) you have made to the program as a result of student or staff feedback
- evidence of external review processes you have done, such as benchmarking against other medical radiation practice programs, or relevant stakeholder consultation with the profession
- data from Graduate Careers Australia, and
- evidence of change(s) you have made to the program as a result of external review processes.

You need to:

- explain how you manage change, including termination of, the medical radiation practice program,
- give information about teach-out mechanisms or program transition plans, and
- explain how teach-out mechanisms and program transition plans make sure that affected students are not disadvantaged by changing or terminating the medical radiation practice programs.

Our assessment of your monitoring, review and updating processes also applies to clinical education and placements and related facilities. We want to see evidence that shows evaluation of:

- student experience while they are on placements, and
- · clinical supervisors and facilities.

Examples of evidence you may choose to submit to show how you meet standard 4.6.2:

- student feedback regarding clinical placements both on campus and at external clinical facilities
- · feedback from clinical supervisors and staff employed at clinical facilities, and
- change(s) you have made to the program as a result of feedback or evaluation of clinical placements and facilities.

You may wish to cross-reference some of the information you provided for standards 2.8, and 4.4 if it is relevant to showing how you meet this standard.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Describe the structures you have in place to allow external stakeholders to give you feedback about your medical radiation program.
- 2. How do you make sure that all your clinical providers give you feedback about the quality of your students' academic and pre-clinical preparations?
- 3. What methods do you use to get feedback from students about the quality of clinical supervision and the placement facilities? What action do you take as a result of this feedback?
- 4. What processes are in place to respond to stakeholder feedback, and to support any required revisions to your program in a timely manner?

- 5. What would prevent you from making changes to your course that were recommended to you by an external review process?
- 6. How do you make sure accreditation requirements such as monitoring reports are completed as required?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Australian Graduate Survey, including Course Experience Questionnaire and Graduate Destination Survey, www.graduatecareers.com.au/research/start/

Graduate Pathways Survey, http://research.acer.edu.au/higher_education/12/

Field 5: Qualification attributes

Summary

The standards in this field align with the provider course accreditation standards in the Threshold HES but **do not simply reproduce them**. Instead, the accreditation standards apply the Threshold HES (which cover all the operations of an education provider) to the context of the medical radiation practice program and the providers offering that program.

The alignment aims to reduce the regulatory burden on education providers by enabling providers to submit evidence that has been provided to TEQSA, or will be provided to TEQSA, if it supports the explanation about how you meet a particular standard.

Standard 5.1 Certification documents

The education provider ensures that it issues appropriate certification documents to graduates of its medical radiation program and maintains processes to authenticate those awards and protect against their fraudulent use, consistent with the Qualifications standards specified in the threshold HES.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard – the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

You must provide us with an example of the testamur and record of results you issue to graduates upon completion of the medical radiation practice program. If you issue a medical radiation practice Graduation Statement, give an example of one.

Provide evidence about how you make sure students have access to a statement of attainment or record of results.

We want to see that the testamur identifies:

- that the medical radiation practice qualification awarded is an award recognised by the AQF using either:
- the words, 'The award is recognised within the Australian Qualifications Framework', or
- the AQF logo, as authorised by the AQF Council
- you, the education provider
- the graduate receiving the award
- the award by its full title
- · date of issue
- person/s authorised to issue the award, and
- the authenticity of the documents in a form to reduce fraud, for example: your seal, corporate identifier and/or unique watermark.

We want to see that the testamur and record of results:

- identify any part of the medical radiation practice program that has been delivered and/or assessed in a language other than English, and
- contain enough information to authenticate the document for the purposes of preventing fraudulent use.

We want to see that the record of results:

- identifies the student, the full title of each unit, the period of study in which each unit was completed and the date issued, and
- is in a form that cannot be mistaken for a testamur or Graduation Statement for a completed

medical radiation practice program.

We want to see that a Graduation Statement, if you issue it, is consistent with the *Guidelines for the Presentation of the Australian Higher Education Graduation Statement*.

All certification documentation you issue must include mechanisms to prevent fraudulent reproduction.

An example of evidence you may choose to submit with your application to show how you meet this standard:

certification documentation containing your seal, corporate identifier and/or unique watermark.

Show how you provide for replacement of certification documentation and how you maintain processes to authenticate and verify replacement documentation.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Provide a sample copy of the testamur of the course being evaluated.
- 2. What mechanisms are in place to authenticate and verify replacement documentation?
- 3. Confirm how your archive a record of results?

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

AQF Qualifications Issuance Policy, www.aqf.edu.au/aqf/in-detail/aqf-policies/

Standard 5.2 Articulation, recognition of prior learning and credit arrangements

The education provider ensures that it maintains processes to provide for the recognition of prior learning, credit transfer and articulation of awards for its medical radiation practice program, consistent with the Qualifications standards specified in the threshold HES.

Guidance

You must complete the relevant sections of the application form and submit evidence to support any claims you make about how you meet this standard.

We will not duplicate TEQSA's assessment of the Threshold HES and our focus is on how you meet this standard – the wording of which is specific to your medical radiation practice program. You may wish to submit evidence that you provided to TEQSA if it supports your explanation about how you meet this standard.

You must show us that there are clear, accessible and transparent policies and processes that provide award pathways and credit arrangements for students. We will want to see articulation arrangement and credit arrangement policies and processes that apply to both internal arrangements and external arrangements.

We want to see evidence that shows that your processes for giving credit into or towards the medical radiation practice qualification are information-based, equitable, transparent, timely and academically defensible.

If there is a formalised credit arrangement with another provider, we want to see that the arrangement maximises the credit available to eligible students for entry into and credit towards the award, subject to preserving the integrity of learning outcomes and/or discipline requirements of the award to which credit applies.

Explain how you make sure any subjects included in an articulation arrangement enable students to achieve the same learning outcomes as applicable to the subject when delivered wholly by you. Show

evidence to support your explanation.

Show how, in determining credit towards the medical radiation practice qualification, you take into account the comparability and equivalence of the learning outcomes, volume of learning, program of study including content, and learning and assessment approaches.

Examples of evidence you may choose to submit to show how you meet this standard:

- your policies and procedures for articulation, recognition of prior learning and credit arrangements
- evidence that these policies and procedures are accessible to students
- details about each relevant internal arrangement, including identifying the program of study, the amount of credit available, and articulation and/or credit transfer arrangements
- details about each relevant external arrangements, including identifying the title of the program, the name of the provider, the amount of credit, and any articulation and/or credit arrangements
- examples of an application for recognition of prior learning towards the medical radiation practice qualification where credit was:
 - awarded, and
 - refused.

Include reasons for the decision and timeframe in which the application was processed

- an example of an appeal against a unsuccessful application for recognition of prior learning towards the medical radiation practice qualification; include the outcome of the appeal and reasons for the decision
- agreements, memorandum of understanding (or similar) that provide details of credit arrangements negotiated with other providers
- a link to publicly available registers of formalised agreements and common credit transfer articulation arrangements, and
- a comparative analysis of student results for the medical radiation practice program delivered by you and delivered by any other entity.

You may wish to cross-reference some of the information you provide for standard 4.1 if it is relevant to showing how you meet this standard.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do you evaluate credit for previous studies?
- 2. Do you have existing articulation arrangements from specific programs/institutions? Tell us how these work.

For Graduate Entry Masters (AQF level 9) programs:

3. Explain how the graduate entry pathway allows students to meet the objectives of the program.

Other sources of guidance

Application forms and guides at www.teqsa.gov.au

Integrated Articulation and Credit Transfer (IACT) Project, 2011, *The Corporate Strategy Approach to Articulation and Credit Transfer*, http://3darticulation.com.au/enabling-resources/corporate-strategy-approach/

Field 6: Professional capabilities of medical radiation practice program graduates

Summary

The standards in this field cover aspects of the knowledge, skills and professional attributes required to practise as a diagnostic radiographer, radiation therapist or nuclear medicine technologist in Australia. These standards reflect the *Professional capabilities for medical radiation practice* developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities). You can access the MRPBA professional capabilities at: www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Overall guidance

You must provide evidence that the medical radiation practice program learning outcomes and assessment cover the scope of the professional capabilities for entry to practice, and that students achieve these professional capabilities during the program. The MRPBA professional capabilities list evidence requirements for each capability.

To meet each standard in Field 6, you must show where each evidence requirement and criteria for each capability is covered, and assessed, in the program. You must also show where standards 6.6.2, 6.7.2 and 6.8.2 are covered and assessed in the program.

We attach templates (6.1-6.8) to help you show where you teach and assess each evidence requirement and criteria for each capability across all years of the program. The templates also list standards 6.6.2, 6.7.2 and 6.8.2 to help you show where you teach and assess these standards. Use of the templates is optional and you may show your evidence in another format.

If you show how you meet standard 4.1.4 by cross-referencing the information you provide to show your evidence for Field 6, make sure you list <u>all</u> learning outcomes. We attach Template 6A to help you list the learning outcomes that do not map to the evidence requirements and criteria in the MRPBA professional capabilities. Use of the templates is optional and you may show your evidence in another format.

We want to see a detailed unit/subject outline for each unit/subject you have identified in the template. Each unit/subject outline must include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

Standard 6.1 Professional and ethical conduct

The education provider ensures all students must demonstrate the ability to:

- (a) practise in an ethical and professional manner, consistent with relevant legislation and regulatory requirements
- (b) provide each patient/client with an appropriate level of dignity and care
- (c) assume responsibility, and accept accountability, for professional decisions, and
- (d) advocate on behalf of the patient/client, when appropriate, within the context of the practitioner's particular division of registration.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 1 of the MRPBA professional capabilities.

Guidance

This standard reflects the responsibility that graduates who register as a medical radiation practitioner in Australia are professional and ethical, and practise within the current medico-legal framework. It also addresses their responsibility for making sure they maintain patient/client confidentiality and privacy at all times, while recognising their potential role as a patient/client or client advocate.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment make sure each student meets the evidence requirements for Domain 1 of the MRPBA

professional capabilities.

We have provided template 6.1 to help you list unit/subject learning outcomes that are relevant to standard 6.1 and the units/subjects where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the unit/subject learning outcomes against evidence requirements for Domain 1 of the MRPBA professional capabilities. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit/subject outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment relevant to each part of this standard.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for Domain 1 of the MRPBA professional capabilities.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Have you ever had to engage with a student over an ethical or legal issue? Tell us how you approached this.
- 2. How do you teach students to be responsive to incidents of poor ethical or clinical practice that they may observe during clinical placement? Does the student know how to correctly act in the situation? Describe a recent example.

To clinical students:

- 1. Tell us what you understand by the term 'notifiable conduct'?
- 2. What would you do if you thought a patient was not getting proper care?
- 3. What do you see as the major differences between your practice in the metropolitan and rural areas you have worked in?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities)

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Medical Radiation Practice Board of Australia's Code of Conduct for registered health practitioners www.medicalradiationpracticeboard.gov.au/Codes-Guidelines/Codes-and-Guidelines.aspx

Standard 6.2 Communication and collaboration

The education provider ensures all students demonstrate the ability to:

- (a) communicate clearly, sensitively and effectively with patient/client and their family or carers, and
- (b) collaborate with other health practitioners.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 2 of the MRPBA professional capabilities.

Guidance

This standard reflects the responsibility that graduates who register as a medical radiation practitioner in Australia have in using the right, clear and effective communication, taking into account the patient/client's health literacy. It also addresses their responsibility for making sure that they function effectively with other health practitioners at all times.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment make sure each student meets the evidence requirements for Domain 2 of the MRPBA professional capabilities.

We have provided template 6.2 to help you list unit/subject learning outcomes that are relevant to standard 6.2 and the units/subjects where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the unit/subject learning outcomes against evidence requirements for Domain 2 of the MRPBA professional capabilities. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit/subject outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for Domain 2 of the MRPBA professional capabilities.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Have you ever had to engage with a student over communication with a patient or health practitioner? Tell us how you approached this.
- 2. How do you educate students on using the right language and communication techniques before clinical placements?
- 3. How do you monitor a student's attainment of effective communication skills (such as written, oral, active listening) throughout the program?
- 4. How do you prepare your students for collaboration with other health practitioners?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Standard 6.3 Evidence based practice and professional learning

The education provider ensures all students demonstrate the ability to:

- (a) apply critical and reflective thinking to resolve clinical challenges, and
- (b) identify ongoing professional learning needs and opportunities.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 3 of the MRPBA professional capabilities.

Guidance

This standard reflects the responsibility that graduates who register as a medical radiation practitioner in Australia have to engage in evidence-based practice and to critically monitor their actions through a range

of reflective processes. It also addresses their responsibility for identifying, planning and implementing their ongoing professional learning needs.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment ensure each student meets the evidence requirements for Domain 3 of the MRPBA professional capabilities.

We have provided template 6.3 to help you list unit/subject learning outcomes that are relevant to standard 6.3 and the units/subjects where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the unit/subject learning outcomes against evidence requirements for Domain 3 of the MRPBA professional capabilities. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit/subject outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references. We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for Domain 3 of the MRPBA professional capabilities.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. How do you teach students how to engage in critical thinking?
- 2. What teaching methods do you use to teach students the principles of scientific research, the differences between quantitative and qualitative research methods and the correct use of research and evidence to inform their practice?
- 3. What opportunities do you give students to implement an evidence-based approach to the practice of radiography, radiation therapy or nuclear medicine technology throughout the clinical education program?
- 4. What kinds of activities have you designed that explicitly require students to engage in reflection upon action and reflection after action?
- 5. How do you encourage students to monitor their own well-being and health?
- 6. How do you foster life-long learning and the skills for it in the program?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Standard 6.4 Radiation safety and risk management

The education provider ensures all students demonstrate the ability to:

- (a) implement safe radiation practice appropriate to their division of registration
- (b) protect and enhance patient/client safety
- (c) confirm and operate equipment and instrumentation safely and appropriate to their division of registration
- (d) maintain safety of self and others in the work environment appropriate to their division of registration, and
- (e) safely manage radiation and radioactivity in the environment.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 4 of the MRPBA professional capabilities.

Guidance

This standard reflects the responsibility that graduates who register as a medical radiation practitioner in Australia have to protect patients/clients, others and the environment from harm by managing and responding to the risks inherent in both health care and medical radiation practice. It also addresses their responsibility for making sure that high quality professional services are provided for the benefit of patients/clients and other service users.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment ensure each student meet the evidence requirements for Domain 4 of the MRPBA professional capabilities.

We have provided template 6.4 to help you list unit/subject learning outcomes that are relevant to standard 6.4 and the units/subjects where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the unit/subject learning outcomes against evidence requirements for Domain 4 of the MRPBA professional capabilities. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit/subject outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key

references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for Domain 4 of the MRPBA professional capabilities.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. What principles of risk management do students apply to radiation safety?
- 2. How do students know which radiation safety legislation, guidelines and regulations apply to their practice?
- 3. Explain how students learn if equipment is operating within safe limits.
- 4. What do students understand about safe radiation practice? How do you assess it?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Australian Radiation Protection and Nuclear Safety Agency www.arpansa.gov.au/

Australian guidelines for the prevention and control of infection in healthcare at www.nhmrc.gov.au

Standard 6.5 Practice in medical radiation sciences

The education provider ensures all students must demonstrate the ability to:

- (a) apply an understanding of anatomy, physiology and pathology that is appropriate to their division of registration
- (b) apply principles of medical radiation physics and instrumentation
- (c) use patient information management systems appropriately
- (d) confirm the procedure according to clinical indicators
- (e) assess patient/client's capacity to receive care
- (f) deliver patient/client care appropriate to their division of registration
- (g) manage and manipulate 3D datasets for diagnostic image production, and
- (h) apply knowledge of pharmaceuticals relevant to their division of registration.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 5 of the MRPBA professional capabilities.

Guidance

All programs of study leading to a qualification in any division of medical radiation practice registration must meet this standard.

This standard covers the knowledge, skills and capabilities a medical radiation practitioner requires to practise independently. Elements in this domain are common to all medical radiation practitioners, taking into account the different requirements between the divisions of registration.

To meet this standard, you must show that the medical radiation practice program learning outcomes and

assessment ensure each student meets the evidence requirements for Domain 5 of the MRPBA professional capabilities.

We have provided template 6.5 to help you list program learning outcomes that are relevant to standard 6.5 and the code of the subjects/units where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the learning outcomes against evidence requirements for Domain 5 of the MRPBA professional capabilities. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for Domain 5 of the MRPBA professional capabilities..

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. What processes are in place to help students who are not performing well?
- 2. What level of knowledge do you expect students to reach with respect to the major subject areas of medical physics, instrumentation and medical sciences?
- 3. How do you make sure that non-medical radiation science lecturers teaching into your courses contextualise their discipline to the practice of medical radiation science (MRS) so that students can apply knowledge of physics, medical sciences, behavioural sciences etc. to the resolution of MRS clinical problems and challenges?
- 4. How do you make key decisions about selecting prescribed academic materials and media in physics, medical sciences and the behavioural sciences? How does this ensure relevance and currency of student learning? Is there a policy to recommend certain internet sites to students?
- 5. Describe how physics, medical sciences and behavioural sciences are integrated vertically and horizontally within practice-specific units generally referred to as instrumentation and technique.
- 6. What teaching strategies and evaluation methods do you use to make sure students know what is expected of them in relation to the delivery of the right patient care?
- 7. How do you make sure all your students have a solid foundational knowledge of medical terminology and current abbreviations they will encounter during clinical education?
- 8. Describe how the learning outcomes show the graduate's ability to confirm the procedure according to clinical indicators. How do you assess this?
- 9. What processes do you have in place to make sure that all your students have a similar basic understanding of patient management systems, and that they know when to seek help from their supervisors about the correct functioning of these systems?
- 10. Graduates from MRS programs must be able to 'alert the appropriate health professional when they observe significant findings of a medically urgent nature'. How do you make sure that your graduates are able to recognise the conditions listed in the glossary when findings are clearly observable?
- 11. How do you prepare students to communicate with, and refer to, other health practitioners within and external to the MRS disciplines?
- Show what resources are available to help students learn medical radiation physics and instrumentation.
- 13. How do students show their understanding of the generation of 3D datasets as applied to their area of study?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Standard 6.6 Practice in diagnostic radiography

- 6.6.1 The education provider ensures all students enrolled in its medical radiation sciences program leading to a qualification in diagnostic radiography must demonstrate the ability to:
 - (a) implement and evaluate general radiography examinations for a range of patient/client presentations and complexities
 - (b) implement fluoroscopy in a range of settings
 - (c) implement diagnostic computed tomography (CT) imaging
 - (d) explain the principles and clinical applications of angiography and interventional techniques
 - (e) explain the principles and clinical applications of magnetic resonance (MR) imaging
 - (f) explain the principles and clinical applications of ultrasound imaging, and
 - (g) explain the principles of mammographic imaging within the clinical context.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 5A of the MRPBA professional capabilities.

6.6.2 The education provider ensures all students enrolled in its medical radiation sciences program leading to a qualification in diagnostic radiography demonstrate the ability to alert the appropriate health professional when they observe significant findings of a medically urgent nature.

Guidance

This standard covers the additional knowledge, skills and capabilities a diagnostic radiographer requires to practise independently.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment make sure each student meets the evidence requirements for Domain 5A of the MRPBA professional capabilities.

We have provided template 6.6 to help you list program learning outcomes that are relevant to standard 6.6 and the code of the subjects/units where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the learning outcomes against the evidence requirements for Domain 5A of the MRPBA professional capabilities and standard 6.6.2. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements of Domain 5a of the MRPBA professional capabilities and Standard 6.6.2.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. Describe how you use simulation to prepare students to actively implement radiographic examinations of the chest and abdomen and the appendicular and axial skeleton using both computed radiography (CR) and diagnostic radiography (DR).
- 2. What assessment strategies do you use to determine if students have attained the necessary range of pre-clinical skills prior to their engagement in clinical education?
- 3. To what depth do you teach and assess student knowledge of radiographic anatomy of the human body?
- 4. To what depth do you teach and assess student knowledge of sectional imaging anatomy of the

- human body?
- 5. How do you teach and assess radiographic critique?
- 6. Describe your approach to teaching and assessing fluoroscopic imaging.
- 7. What teaching techniques do you use to teach the principles and practice of modalities, for example multislice CT or other advanced imaging modalities or techniques?
- 8. How do you assess the capacity of students to perform a range of basic CT examinations?
- 9. How do you teach MR imaging to your students?
- 10. Tell us about any innovative approaches you use.
- 11. What assessment strategies do you use to determine the extent to which students understand the principles and clinical applications of medical ultrasound?
- 12. How do you make sure your teaching of mammography is current and relevant to the broader issue of women's health?
- 13. How do you make sure students experience a broad range of patient/client presentations and complexities?
- 14. Explain how simulation activities in diagnostic radiography are used within the program.
- 15. How do you evaluate student ability to implement the listed modalities?
- 16. How are pre-clinical skills developed within the program and how does the timing of particular skill sets relate to the conduct to the clinical program?
- 17. To what level is the recognition of normal and abnormal pathology taken within the program?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Standard 6.7 Practice in nuclear medicine

- 6.7.1 The education provider ensures all students enrolled in its medical radiation sciences program leading to a qualification in nuclear medicine technology must demonstrate the ability to:
 - (a) implement the preparation and assess purity of radiopharmaceuticals
 - (b) explain the biodistribution and applications of radiopharmaceuticals including therapies
 - (c) implement routine nuclear medicine imaging
 - (d) implement computed tomography (CT) imaging for nuclear medicine imaging
 - (e) implement the delivery of nuclear medicine radioisotope examinations and therapies, and
 - (f) describe how to undertake in vivo and in vitro laboratory procedures.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 5B of the MRPBA professional capabilities.

- 6.7.2 The education provider ensures all students enrolled in its medical radiation sciences program leading to a qualification in nuclear medicine technology must demonstrate the ability to:
 - (a) explain the principles and clinical applications of ultrasound imaging and magnetic resonance (MR) imaging, and
 - (b) alert the appropriate health professional when they observe significant findings of a medically urgent nature.

Guidance

This standard covers the additional knowledge, skills and capabilities a nuclear medicine scientist requires to practise independently.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment make sure each student meets the evidence requirements for Domain 5B of the MRPBA professional capabilities.

We have provided template 6.7 to help you list program learning outcomes that are relevant to standard 6.7 and the code of the subjects/units where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the learning outcomes against evidence requirements for Domain 5B of the MRPBA professional capabilities and standard 6.7.2. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for. Domain 5b of the MRPBA professional capabilities and Standard 6.7.2.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. What learning outcomes allow the student to determine how the radiopharmaceutical preparation steps impact the quality of labelled product?
- 2. Explain how students learn normal and altered bio-distribution of radiopharmaceuticals and the implications for nuclear medicine imaging.
- 3. Show what students learn of the application of CT in nuclear medicine especially the differences between diagnostic and other applications.
- 4. What resources are available for students to process and clinically evaluate single photon emission computed tomography (SPECT), positron emission tomography (PET) and CT data and how do you maintain currency with new techniques?
- 5. How do you assess students are competent in a range of nuclear medicine studies including SPECT and SPECT/CT?
- 6. What course components show and evaluate the students' understanding of the principles of nuclear medicine therapies?
- 7. How do students apply their understanding of physiology to in-vivo nuclear medicine diagnostic tests?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Standard 6.8 Practice in radiation therapy

- 6.8.1 The education provider ensures all students enrolled in its medical radiation sciences program leading to a qualification in radiation therapy must demonstrate the ability to:
 - (a) apply knowledge of stabilisation devices related to radiation therapy
 - (b) apply treatment simulation techniques
 - (c) apply knowledge of treatment planning
 - (d) implement computed tomography (CT) imaging for oncologic treatment planning, and
 - (e) implement treatment techniques according to approved plans.

To meet this standard, the education provider must demonstrate that the medical radiation practice program's learning outcomes and assessment ensure each student meets the evidence requirements for Domain 5C of the MRPBA professional capabilities.

- 6.8.2 The education provider ensures all students enrolled in its medical radiation sciences program leading to a qualification in radiation therapy demonstrate the ability to:
 - (a) explain the principles and clinical applications of ultrasound imaging and magnetic resonance (MR) imaging, and
 - (b) alert the appropriate health professional when they observe significant findings of a medically urgent nature.

Guidance

This standard covers the additional knowledge, skills and capabilities a radiation therapist requires to practise independently.

To meet this standard, you must show that the medical radiation practice program learning outcomes and assessment ensure each student meets the evidence requirements for Domain 5C of the MRPBA professional capabilities.

We have provided template 6.8 to help you list program learning outcomes that are relevant to standard 6.8 and the code of the subjects/units where each of the listed learning outcomes is addressed. Use of the template is optional but you must map the learning outcomes against evidence requirements for Domain 5C of the MRPBA professional capabilities and standard 6.8.2. Mapping of learning outcomes for each unit/subject to assessment tasks including specific detail of the assessment task.

We will want to see a detailed unit outline for all units/subjects identified in the template. Each unit/subject outline should include the unit/subject outcomes, the assessment, the schedule that identifies the topics covered, the type of delivery such as lecture, demonstration or practical class and a list of key references.

We will want to see evidence that explicitly identifies how and where the learning outcomes for each unit/subject in the program are assessed – this may include the information about each assessment task you provide to the students and to staff teaching in the program.

We will want to see de-identified examples of completed and graded student assessment work relevant to the evidence requirements for Domain 5c of the MRPBA professional capabilities and Standard 6.8.2.

Example questions

During the site visit, the assessment team may require you to provide additional information or to respond to questions about this standard. Examples of the type of questions team members may ask:

- 1. What learning outcomes allow the student to determine the right stabilisation to be used for a range of radiotherapy treatments?
- 2. Explain how students learn radiation therapy simulation techniques for both palliative and radical intent treatments.
- 3. Can you show us what students learn of the application of CT in radiation therapy especially the differences between planning and other applications?

- 4. What resources are available for students to develop and clinically evaluate 3DCT, intensity-modulated radiation therapy (IMRT) and volumetric modulated arc therapy (VMAT) treatment plans? How do you maintain currency with new techniques?
- 5. What learning outcomes allow the student to interpret imaging modalities such as PET, magnetic resonance (MR) imaging, CT and ultrasound (US) in the diagnosis, treatment planning and follow up for cancer patients?
- 6. How do you determine learning outcomes for students understanding and ability to implement treatment plans, image verification and the role of record and verify systems?

Other sources of guidance

Professional capabilities for medical radiation practice developed by the Medical Radiation Practice Board of Australia (MRPBA professional capabilities).

www.medicalradiationpracticeboard.gov.au/Registration/Professional-Capabilities.aspx

Glossary

Articulation arrangement

means a defined pathway that enables a student to progress from a completed program to another program with admission and/or credit based on completing the first program.

(Adapted from: TEQSA Application Guide)

Clinical education

means the performance of professional procedures and/or processes by a student or a group of students who receive guidance and feedback from a clinical supervisor. The purpose of clinical education is to develop the professional capabilities required to engage in safe and effective practice of the medical radiation practice profession. Clinical education includes experience providing patient care.

Clinical supervision

means the oversight – either direct or indirect – by a clinical supervisor of professional procedures and/or processes performed by a student or a group of students within a clinical placement. The purpose of clinical supervision is to guide, provide feedback on, and assess personal, professional and educational development. Clinical supervision is in the context of each student's experience of providing safe, appropriate and high quality patient care.

Clinical supervisor

means a registered medical radiation practitioner who guides students' education during clinical placements. The clinical supervisor's role may cover educational, support and managerial functions. The clinical supervisor is responsible for ensuring safe, suitable and high-quality patient care at all times throughout students' clinical education.

Credit arrangement

means a formal negotiated arrangement within and between education providers, or between education providers and students, about student entitlement to credit for components of a program. (Adapted from: *TEQSA Application Guide*)

Credit transfer

means a process that provides students with agreed and consistent credit outcomes for completed components of a program based on identified equivalence in content and learning outcomes between matched programs. (Adapted from: *TEQSA Application Guide*)

Current scholarship

involves, in the context of teaching and learning:

- demonstrating current subject knowledge and an ongoing intellectual engagement in primary and allied disciplines, and their theoretical underpinnings
- keeping abreast of the literature and new research, including by interaction with peers, and using that knowledge to inform teaching and learning
- encouraging students to be critical, creative thinkers and enhancing understanding of teaching through interaction with students
- engaging in professional practice that is appropriate to the discipline
- being informed about the literature of teaching and learning in relevant disciplines and being committed to ongoing development of teaching practice, and
- focusing on the learning outcomes of students.

(Adapted from: TEQSA Application Guide)

Education provider

means

- (a) a university; or
- (b) other provider registered by TEQSA as a 'Higher Education Provider'.

Learning outcomes

means the expression of the set of knowledge, skills and the application of the knowledge and skills a person has acquired and is able to demonstrate as a result of learning.

(Adapted from: Australian Qualifications Framework, January 2013)

Medical radiation practice program of study or medical radiation practice program means a medical radiation practice program of study provided by an education provider.

Recognition of prior learning

means a process that involves assessment of an individual's relevant prior learning (including formal, informal and non-formal learning) to determine the credit outcomes of an individual's application for credit for components of a program. (Adapted from: *TEQSA Application Guide*)

Significant findings of a medically urgent nature

means, in the context of standard 6.2.2 (practice in diagnostic radiography): Diagnostic radiography findings:

- acute dislocations
- soft tissue signs of occult fractures
- · fractures around the hip and pelvis
- disruption to the lines of alignment of cervical spine lateral projection and soft tissue signs of underlying injury
- non alignment of the lateral masses of C1 and a break in the odontoid peg - fracture/dislocation of C1/C2
- fractures involving the thoracic, lumbar and sacro-coccygeal spine
- foreign bodies in head, neck chest & abdomen, particularly in the paediatric patient
- pneumothorax (spontaneous and tension), pneumomediastinum
- mis-positioning of important chest tubes and lines
- bowel (small and large) obstructions, sigmoid volvulus, pneumoperitoneum
- ureteric calculi.

Computed tomography findings:

- acute brain haemorrhage
- signs of sub-arachnoid haemorrhage versus subdural haemorrhage
- skull fracture
- signs of subacute stroke
- space occupying lesion in the brain
- pulmonary embolus
- dissecting aortic aneurysm
- ureteric calculi.

means, in the context of standard 6.7.2 (practice in nuclear medicine):

technical issues with data presentation for reporting purposes.

means, in the context of standard 6.8.2 (practice in radiation therapy):

- incidental clinical findings of secondary malignancies or related sequelae during radiation therapy planning scanning
- signs of significant deterioration in the patient's condition during radiation therapy treatment (e.g. cyanosis, confusion, loss of consciousness).

Teach-out mechanisms

means arrangements that allow students to complete the qualification or program in which they were enrolled at the time the education provider decided to discontinue offering that qualification or program.

Testamur

means an official certification document that confirms that a qualification has been awarded to an individual. In Australia this may be called an 'award', 'parchment', 'laureate' or 'certificate'.

Volume of learning

The volume of learning is a dimension of the complexity of the qualification type within the AQF descriptions. It identifies the notional duration of all activities required to achieve the learning outcomes specified for a particular AQF qualification type. It is expressed in equivalent full-time years.

List of acronyms

AQF Australian Qualifications Framework

CR Computed radiography

CT Computerised tomography

DR Diagnostic radiography

IMRT Intensity-modulated radiation therapy

IT Information technology

MBS Medicare Benefits Schedule

MR Magnetic resonance

MRPBA Medical Radiation Practice Board of Australia

MRS Medical radiation science

PET Positron emission tomography

SPECT Single photon emission computed tomography

TEQSA Tertiary Education Quality and Standards Agency

VMAT Volumetric modulated arc therapy

Threshold HES Higher Education Standards Framework (Threshold Standards) 2011