

# Radiation Therapy Program

## Technical Standards with Self-Assessment

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**Additions/deletions for Approval:**

<b>Office of Accountability:</b>	Dean, Faculty of Medicine & Dentistry
<b>Office of Administrative Responsibility:</b>	Radiation Therapy Program, Department of Oncology
<b>Approver:</b>	Department of Oncology Chair
<b>Scope:</b>	Compliance with this policy extends to all members of the Radiation Therapy Program.

### 1) Purpose:

This document serves as the detailed description for the Radiation Therapy Program (referred to as the "Program") Technical Standards Policy and Procedure, available on the program website. It is intended to provide guidance to students contemplating application, and those already admitted, to determine if they have the physical and mental health attributes that will support success in the Program.

### 2) Requisite Skills and Abilities for Radiation Therapy Students:

The Radiation Therapy Program requires students to progress together as a cohort following the program layout. Students participate in classroom, laboratory and clinical practice settings to achieve the knowledge, skills and attitudes required to practice as a Radiation Therapist upon graduation. Radiation Therapists work independently and collaboratively with other health care providers to care for a diverse patient population. Radiation Therapists assess patients, create and deliver individualized patient treatment plans, promote health, advocate and educate patients and families, are health care researchers and interdisciplinary consultants.

Throughout the Program, students must participate in simulation activities, laboratories, and clinical practicum courses which require performance of physically and mentally challenging activities, similar to those skills required of a practicing Radiation Therapist. Students are expected to act in the role of a patient for the practice of non-invasive clinical procedures. This information is based on the essential skills for Radiation Therapists identified by Canadian Association of Medical Radiation Technologists and the Alberta College of Medical Diagnostic and Therapeutic Technologists. The information provided is intended as a summary of the specific practice requirements. For comprehensive information, prospective or current students are encouraged to go to the identified websites.

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### **3) Details for Specific Skills and Abilities:**

#### **a) Observation**

##### **i. Visual Abilities**

Radiation Therapists must be able to:

- Reliably discern a radiation therapy tattoo (an ink dot the size of a small freckle) on a patients' body
- Reliably read a measurement from a ruler, to the millimetre
- Read textbooks, journal articles, policy manuals and computer screens, including the electronic patient chart, with a font size of 10
- See details in objects that are less than an arm's length away
- Utilize a computer or write information related to patient assessment and treatment
- Differentiate various colors of lasers used for the purposes of accurate treatment setup

#### **b) Communications**

##### **i. Verbal and Non-Verbal Abilities**

Radiation Therapists must be able to:

- Communicate effectively, accurately and clearly in English, in rapidly changing environments, using verbal, non-verbal, and written formats. Communication occurs with patients, family members, and other members of the health care team.
- Communicate effectively to provide instructions and direction to colleagues, patients, and other healthcare professionals
- Discuss and communicate collaboratively with colleagues, and other healthcare professionals
- Instruct, and be understood, by patients and family members during treatment and education sessions
- Use evidence-informed questioning techniques to ask questions and obtain detailed information based on verbal and non-verbal communication
- Recognize, interpret and respond to non-verbal communication
- Deliver presentations to colleagues, health care professionals and community groups

##### **ii. Hearing Abilities**

Radiation Therapists must be able to:

- Identify and differentiate sounds related to software and equipment used, in order to assess or respond

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- Hear and respond to alarms used to monitor patients and ensure patient safety
- Hear verbal communications from frail patients with significant background noise
- Hear verbal communication from all team members, including those **who are not looking at you**, with significant background noise
- Listen for detailed information in team meetings, lectures and seminars
- Identify facts, opinions and attitudes during patient care or treatment sessions

### iii. **Writing Abilities**

Both on paper and in electronic platforms, Radiation Therapists must be able to:

- Write/record legible and accurate instructions for patients and partners
- Write/record legible and accurate assessment, treatment and care instructions
- Write/record legible and technically accurate notes to other health professionals, using appropriate professional language

### iv. **English Language Requirement**

English is the primary language of instruction at the University of Alberta and in the Canadian and Alberta healthcare system. Radiation Therapy students must demonstrate a high level of proficiency in English. Radiation Therapists require a high level of English language skills to effectively communicate with patients, their caregivers and other healthcare professionals.

## c) **Motor and Tactile Function**

### i. **Physical Abilities**

Clinical practice is physically demanding. Radiation Therapy students must possess the physical strength and be physically fit, to prevent injury to themselves, their colleagues, and their patient.

Radiation Therapists must be able to:

- Stand and maintain balance when performing a variety of tasks
- Walk, kneel, and bend in order to provide care for patients
- Transfer patients and move equipment
- Use hand-eye coordination, multiple limb coordination and manual dexterity to perform complex treatment set-ups and positioning
- Have the strength to support, lift and position patients, as well as lift or carry necessary equipment
- Be able to comply with all infection control procedures, including having skin that is intact and capable of performing a complete hand hygiene

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routine up to your elbow (e.g. regular use of soap, water and hand sanitizer, with no compression sleeve, wrist guards, etc.)

### d) **Cognition, Intellectual-Conceptual, Integrative and Qualitative Abilities**

#### i. **Cognitive (Thinking) Skills**

Radiation Therapists are required to:

- Have the ability to acquire information through observation and perception, using senses and mental ability. They must accurately observe a patient and acquire information through visual, auditory and somatic sensation.
- Think problems through critically and make a decision about an appropriate and defensible action (e.g. making decisions or recommendations for a treatment, based on consideration of all aspects of a patients' treatment plan and condition, requesting additional supports as required, utilizing alternative techniques)
- Solve unanticipated problems (e.g. equipment is no longer available, missed appointments, set-ups or treatments don't go as expected)
- Have the ability to work independently and competently in a timely fashion.

#### ii. **Job Task Planning and Organizing**

Radiation Therapists play a central role in organizing, planning and scheduling health services, and contribute to long-term and strategic planning for their organizations. They are responsible for effectively working within a multidisciplinary team and ensuring all aspects of patient care and patient delivery have been met.

Radiation Therapists are required to:

- Plan and organize job tasks to meet the treatment needs of their patients
- Set priorities and provide input into the day-to-day scheduling of patients'
- Complete required documentation
- Complete quality assurance of treatment plan, patient medical record and equipment

#### iii. **Significant Use of Memory**

Radiation Therapists must have good memory skills in order to recall assessments and details of treatments performed, specific problems encountered and recommendations discussed to complete the patients' records.

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Radiation Therapists are required to:

- Recall patients' names and details about their medical histories, physical conditions, injuries and dysfunctions to save time, facilitate communication and show genuine interest
- Recall various codes to access electronic and treatment equipment

### e) **Behavioural and Social Attributes**

Radiation Therapists are required to:

- Demonstrate mature, sensitive and effective therapeutic relationships with patients and their families, all members of the medical community and healthcare teams
- Accept the physical, emotional and mental demands of the program, and function effectively under stress, including within the clinical environment (e.g. Demonstrate coping skills in difficult situations such as death and dying)
- Adapt to changing environments, and function in the face of uncertainties that are inherent in the care of patients and their families

## APPENDIX A

### **Self-Assessment of Skills and Abilities Required For Radiation Therapy Students**

The following statements identify common everyday tasks. These tasks use some of the same skills and abilities a radiation therapy student may be required to perform in a clinical setting.

These statements are intended to give an individual an opportunity to identify any potential challenges for themselves, and help determine if they have the requisite skills and abilities to fully participate in all components of the Radiation Therapy Program. While this list sets out some of the main skills and abilities required of a Radiation Therapy student, it does not necessarily include all of the skills, abilities and competencies required.

After reviewing the preceding information, complete the questions below:

<b>Question</b>	<b>YES</b>	<b>NO</b>
I am able to easily lift 45 pounds (20 kilograms) for up to 30 seconds		
I am able to stand on my feet for long periods of time without requiring a break		
I am able to write legibly with a pen		
I am able to differentiate between blue, red and green lights		
I am able to perform computer keyboarding		

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I am able to hold a cup of liquid steady for 30 seconds		
I am able to perform complex hand-eye coordination procedures requiring both hands		
I am able to perform a task that has multiple different steps		
I am able to hear a microwave beep		
I am able to hear a whispered conversation while there is background noise		
<b>Question</b>	<b>YES</b>	<b>NO</b>
I am able to read information on a prescription label		
I am able to easily comprehend directions given in English in a busy environment		
I am able to communicate with others effectively in spoken English		
I am able to write in English to effectively communicate my observations		
I am able to work effectively in teams, including: acceptance of personal responsibility and responsibility of team function; interact with others respectfully and collaboratively; respond professionally to changes and challenges		
I am able to use problem solving skills to resolve an issue		
I am able to solve mathematical problems that involve addition, subtraction, multiplication, division, and ratios		
I am able to accurately measure distances in millimeters		
I have good visual depth perception and am able to accurately discern visual changes in a grey color scale		
I am able to focus in a busy or stressful environment and maintain an attention to detail		
I am able to control my emotions, control my sensitivity to odours and sights associated with nudity or the human body		

**NOTE:**

In addition to the above mentioned skills and abilities, should you have any other condition that affects your physical, mental or general health (including, but not limited to lower immunity to disease, allergies or phobias e.g blood, needles), even if it is well managed, or any other reason that may impede your ability to successfully participate in all aspects of the program, including your clinical placement, it is **strongly advised** that you refer to the Technical Standards Procedure and consult with the Clinical Liaison or delegate.

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## DEFINITIONS

Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. [▲Top](#)

<b>Technical standard</b>	An established norm or required ability or skill.
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## RELATED LINKS

Technical Standards Policy

Technical Standards Procedure