

# Radiation Oncology

COURSE SYLLABUS (RAON00ODM26)

2026-2028

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[\(See course page for course author biographies and contributions\)](#)

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**Course Format:** eLearning

**For Course Related Questions & Technical Support:** [support@desouzainstitute.com](mailto:support@desouzainstitute.com)

**Registration:** Required

**Eligibility:** Regulated health care providers

**Prerequisite:** None. *Taking the de Souza Institute Foundations of Oncology Nursing Practice course or the Cancer Care Basics course is **strongly** recommended before taking this course.*

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## A. COURSE DESCRIPTION

Radiation therapy (RT) is used to cure, control, and palliate cancer. This course has **10 sections/33 modules** and provides a comprehensive introduction to the principles, practices and interprofessional roles in RT with a focus on the role of the radiation oncology nurse. Radiation therapy workflow from initial consultation, simulation, treatment planning, RT delivery and follow up care is described. Using an evidence-based approach, participants will learn how to assess and manage common side effects and site-specific side/adverse effects adult patients experience during RT. The aim of this course is to engage and equip you with essential knowledge to provide comprehensive, confident and competent care for adult patients receiving RT.

This course is self-paced, but you must complete the whole course within **eight weeks** of the course start date (this date is found on the course information page in your *My Account*). Course content and resources in this course are based on best practice guidelines from provincial and national bodies and may vary from your healthcare organization; please consult your organization educators about local protocols and policies.

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**Domain of Practice** Treatment and Delivery of Evidence Based Care

**Learning Hours** 13 hours

**de Souza Credit** 0.25 credit

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## B. COURSE OBJECTIVES

By the end of this course, you will be able to:

- Explain the various radiation therapy modalities, mechanisms of action and goals for treating cancer.
- Describe the principles of radiobiology and radiosensitivity, and how they impact a patient's treatment plan.
- Describe the roles of the radiation oncology nurse and other radiation therapy team members pertaining to patient care.
- Explain the effect of concurrent chemotherapy or immunotherapy on radiation therapy in treating various cancers.
- Anticipate, recognize, assess, grade, and manage radiation-induced side effects including disease site specific side effects.
- Differentiate between acute, late, and long-term side effects
- Identify and describe the two most common oncologic emergencies managed with radiation therapy.
- Teach patients, families and caregivers about what to expect during RT simulation, treatment delivery and follow-up care.

## C. MODE OF LEARNING: eLearning

The eLearning environment fosters a self-directed approach. You can progress through the modules and exercises at a convenient time, at home or work. The course timetable (**Section F** of the course syllabus) outlines a suggested weekly schedule for participants.

- **eLearning Modules**: Sections and modules were developed by the de Souza education team and external subject matter experts to reflect the latest knowledge in radiation therapy. The content is up-to-date and includes interactive application exercises and links to the latest clinical guidelines. Please note the course does not replace your own organization's policies and procedures.
- **Study Guides**: Each course section has a printable study guide that you can print and fill, or that you can fill electronically and save. This way you have study notes for the quizzes and course information to keep for your future reference.

## D. MODES OF EVALUATION

As part of the evaluation process, you are required to complete the following:

- **A Baseline Participant Survey**: This survey assesses your knowledge, attitude, and confidence before you begin the eLearning modules for the course.
- **eLearning Modules**: You must complete all **10 sections/33 modules** by the course end date (your course end date can be found in your “MyAccount”).
- **Quizzes**: There are three quizzes in this course. The **minimum passing grade for each quiz is provided in Section F**. The quizzes are open book, and you have **two attempts** at each quiz to achieve a passing grade. You are required to complete each quiz independently.
- **Course Evaluation**: At the end of the course, you are required to complete a “Post Course Survey” to provide your feedback on whether the content met your learning needs. These surveys are facilitated electronically through eLearning.

When you have met all the above requirements, you will receive **13 learning hours, 0.25 de Souza credit** towards obtaining your de Souza designation, and an email containing instructions on how to download your certificate of completion via your “My Account”.

## E. EXPECTATIONS FOR PARTICIPANTS

To be successful in completing this course, you are encouraged to set aside 2 to 3 hours each week to complete the activities. The total learning hours for this course **does not include study time and writing time for the quizzes**. Your course activity completion will be reflected in your **grade book**. You are expected to complete all sections through the eLearning system.

If you are experiencing difficulty completing this course in a timely way, please review de Souza Institute policies in **Section K** and contact the educator at [support@desouzainstitute.com](mailto:support@desouzainstitute.com)

## F. SUGGESTED COURSE TIMELINE

You **do not** have to complete the weekly course activities exactly as outlined below. However, you must complete all course requirements within **eight weeks** of registering for the course.

	<b>Suggested Weekly eLearning Activities – 2-3 hours/week</b>
<b>Start of Course</b>	<ul style="list-style-type: none"> <li>✓ Learner Agreement</li> <li>✓ Participant Baseline Survey</li> </ul>
Week 1	<ul style="list-style-type: none"> <li>✓ Download Section 01, 02, 03, 04 Study Guides                             <ul style="list-style-type: none"> <li>• Section 01: Principles of Radiation Therapy</li> <li>• Section 02: Radiobiology and Tissue Radiosensitivity</li> <li>• Section 03: Radiation Treatment Planning</li> <li>• Section 04: Methods of Radiation Delivery                                     <ul style="list-style-type: none"> <li>○ Module 01: External Beam Radiation Therapy</li> <li>○ Module 02a: Internal Radiation Therapy</li> <li>○ Module 02b: Internal Radiation Nursing Role</li> <li>○ Module 02c: Anesthesia for Brachytherapy</li> </ul> </li> </ul> </li> </ul>
Week 2	<ul style="list-style-type: none"> <li>✓ Download the Section 05, 06, and 07 Study Guides                             <ul style="list-style-type: none"> <li>• Section 05: Occupational Health &amp; Safety</li> <li>• Section 06: Combined Therapy                                     <ul style="list-style-type: none"> <li>○ Module 01: Concurrent Chemotherapy + Radiation Therapy</li> <li>○ Module 02: Combined Immunotherapy + Radiation Therapy</li> </ul> </li> <li>• Section 07: Palliative Radiation                                     <ul style="list-style-type: none"> <li>○ Module 01: Bone Metastases and Impending Pathological Fractures</li> <li>○ Module 02: Lung Metastases</li> <li>○ Module 03: Brain Metastases</li> <li>○ Module 04: Malignant Wounds</li> </ul> </li> </ul> </li> </ul>

Week 3 + Quiz	<ul style="list-style-type: none"> <li>✓ Download Section 08 Study Guides <ul style="list-style-type: none"> <li>• Section 08: Oncological Emergencies Treated with Radiation Therapy <ul style="list-style-type: none"> <li>○ Module 01: Spinal Cord Compression</li> <li>○ Module 02: Superior Vena Cava Syndrome</li> </ul> </li> </ul> </li> </ul>
<b>Quiz 01: Section 01-08 Total 18 questions, Passing Mark = 13/18 or 72%</b>	
Week 4	<ul style="list-style-type: none"> <li>✓ Download Section 09 Study Guides <ul style="list-style-type: none"> <li>• Section 09 Side Effects of Radiation Therapy <ul style="list-style-type: none"> <li>○ Module 01: Principles of Symptom Assessment</li> <li>○ Module 02: Fatigue</li> <li>○ Module 03: Radiation-Induced Cutaneous Side Effects</li> <li>○ Module 04: Pain</li> <li>○ Module 05: Distress</li> </ul> </li> </ul> </li> </ul>
Week 5 + Quiz	<ul style="list-style-type: none"> <li>• Section 09 Side Effects of Radiation Therapy (continued) <ul style="list-style-type: none"> <li>○ Module 06: Nutrition</li> <li>○ Module 07: Neutropenia</li> <li>○ Module 08: Sexuality and Fertility</li> <li>○ Module 09: Radiation-Induced Nausea and Vomiting</li> <li>○ Module 10: Mucositis</li> </ul> </li> </ul>
<b>Quiz 02: Section 09 Total 18 questions: Passing Mark = 13/18 or 72%</b>	
Week 6	<ul style="list-style-type: none"> <li>✓ Download Section 10 Study Guides <ul style="list-style-type: none"> <li>• Section 10: Site Specific Radiation Side Effects <ul style="list-style-type: none"> <li>○ Module 01: CNS</li> <li>○ Module 02: Head and Neck</li> <li>○ Module 03: Chest and Thorax</li> </ul> </li> </ul> </li> </ul>

Week 7	<ul style="list-style-type: none"> <li>• Section 10: Site Specific Radiation Side Effects <ul style="list-style-type: none"> <li>○ Module 04: Breast</li> <li>○ Module 05: Abdomen and Pelvis</li> </ul> </li> </ul>
Week 8 + Quiz	<ul style="list-style-type: none"> <li>• Section 10: Site Specific Radiation Side Effects <ul style="list-style-type: none"> <li>○ Module 06: Sarcoma</li> <li>○ Module 07: Lymphoma</li> </ul> </li> </ul>
<b>Quiz 3: Section 10 Total 14 questions: Passing mark = 10/14 or 71%</b>	
End of Course	<ul style="list-style-type: none"> <li>✓ Complete course survey</li> </ul> <p style="text-align: right;"><b>Total approximate learning hours: 13 hours</b></p>

## G. COURSE EDUCATOR

[Allison Loucks RN, MN, CON\(C\)](#)

## H. EDUCATOR AVAILABILITY

This course is self-directed. If you have questions about the course or are having difficulty with the course content, contact [support@desouzainstitute.com](mailto:support@desouzainstitute.com) and include the course name "RAON" in the subject line. You can expect the course educator Allison Loucks, or another educator to respond to your questions within 24 hours during the week and within 48 hours (about 2 days) on the weekend.

## I. VIRTUAL LIBRARY

de Souza Institute has a [virtual library](#) that can be accessed to those registered in this course or any other de Souza Institute continuing education program. This resource enables you to access over 1500 e-Journals, 200 e-books and 8 on-line databases such as CINAHL or Ovid-Medline. You can use the virtual library to access the required reading materials for your course. The virtual library can be accessed 24 hours a day at any location that has internet access using a login and password.

The direct link is <https://library.desouzainstitute.com/login>.

## J. TECHNICAL SUPPORT

### eLearning Centre Orientation

The [eLearning Centre Orientation](#) will introduce you to online learning and to help you understand how to navigate through the de Souza Institute eLearning Centre and courses. It is **strongly** recommended that you complete this orientation so that you will be able to successfully navigate de Souza's eLearning environment.

### de Souza Institute Support

If you need assistance accessing or navigating the eLearning Centre, please refer to the eLearning Orientation course. If you have questions or have any general technical difficulties, please contact [support@desouzainstitute.com](mailto:support@desouzainstitute.com).

## K. POLICIES AND PROCEDURES

Click the links below to read these important de Souza Institute policies:

[Academic Honesty and Copyright Policy](#)

[Cancellations, Incomplete and No Show Policy](#)

[Accommodation Policy](#)